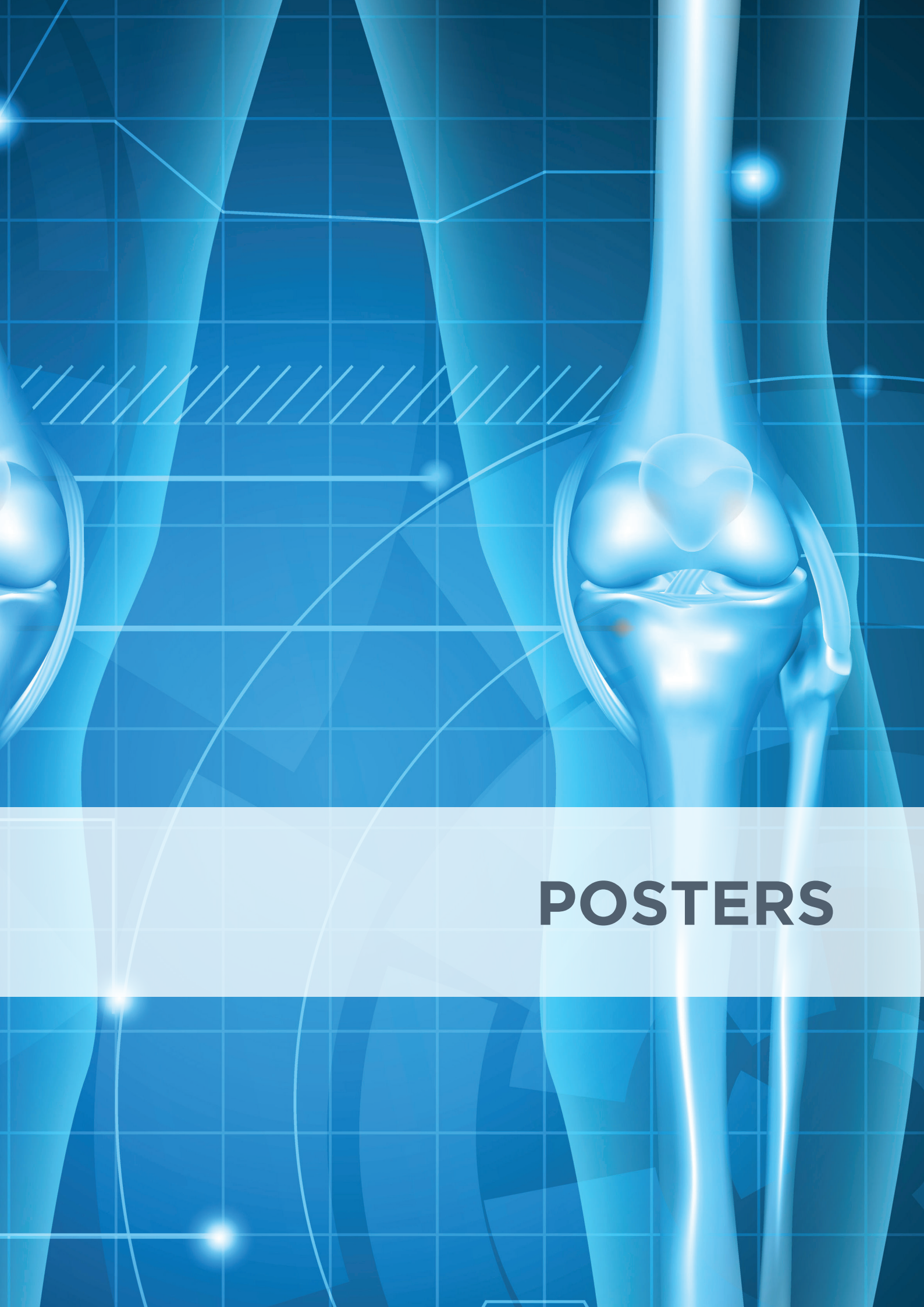

POSTERS

Trabalho Original

004 - INTERSTITIAL LUNG DISEASE IN SJÖGREN'S DISEASE: THE PORTRAIT OF A NATIONAL COHORT

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Introduction: Apart from sicca symptoms related to exocrine glands involvement, several extra-glandular manifestations can occur in Sjögren's disease (SjD) such as pulmonary manifestations. Interstitial lung disease (ILD) is the most common lung manifestation in SjD.

We aim to evaluate the presence of ILD in a national cohort of patients with SjD, identify risk factors for its development and progression, as well as describe the treatment used for SjD-ILD and its effectiveness and tolerability.

Methods: We conducted an observational multicenter study of SjD-ILD patients prospectively followed in Reuma.pt . Demographic and clinical data were collected.

We compared patient characteristics between those with and without SjD-ILD using Chi-square or Fisher's exact test, Mann–Whitney or independent samples t-test, as appropriate. Logistic regression analysis was used to identify predictors of SjD- ILD, and Cox regression analysis to determine predictors of ILD progression.

A linear mixed model with random intercept was used to compare results from pulmonary function tests (PFTs) before and after immunosuppression initiation.

Results: Of the 1532 patients enrolled in the Reuma.pt-SjD protocol, 1333 (87%) had information on the presence of pulmonary manifestations. Among these, 127 (9.5%) had documented lung involvement, with ILD being the most common manifestation (74%). Ever smoking (OR=1.899; [95%CI:1.014-3.555]; p=0.045) and older age at SjD diagnosis (OR=1.045 per year; [95%CI:1.023-1.068]; p<0.001) were associated with a higher risk of ILD.

Nonspecific interstitial pneumonia was the most frequent ILD pattern (45.7%).

Immunosuppression was used in 62 (66%) SjD-ILD patients and antifibrotics in eight patients (in seven of them in association with immunosuppression).

Among the 26 patients with serial PFTs available, 10 (38.5%) showed progression of ILD. Hypergammaglobulinemia (HR=66.1; [95%CI:1.6-2818.5]; p=0.029) and higher diffusion capacity for carbon monoxide (DLCO) at baseline (HR=1.1; [95%CI:1.01-1.2]; p=0.026) were predictors of ILD progression. Nevertheless, immunosuppression interrupted the decline of forced vital capacity and DLCO.

Conclusion: This work demonstrated that a substantial proportion of SjD-ILD patients present with progressive fibrosis. Immunosuppression seems to delay the progression of lung diseas. Therefore, identifying risk factors for ILD development and progression is essential for recognizing which patients will require closer monitoring and intervention.

014 - UPADACITINIB TREATMENT IN MODERATE TO SEVERE RHEUMATOID ARTHRITIS PATIENTS; REAL WORLD DATA FROM THE PORTUGUESE REGISTRY REUMA.PT – RAPORT STUDY

Lídia Teixeira[1], Miguel Bernardes[2, 3], Carlos Marques-

004 – TABLE I. Comparison of clinical characteristics between patients with and without interstitial lung disease

	ILD (N=94) *	Non-ILD (N=1239)	Percentage of missing data	p-value
Male	17 (18.1%)	69 (5.6%)	0%	<0.001
Caucasian	72 (92.3%)	955 (92.8%)	22.8%	0.869
Ever smoking	24 (34.3%)	181 (21%)	34.9%	0.010
Age at SjD diagnosis	61.3 ± 12.8	53 ± 14.3	13.8%	<0.001
SjD duration at last visit	12.5[5.35-19.35]	9.6 [5.8-16.2]	26.5%	0.140
Positive ANA	87 (92.6%)	1092 (90.2%)	14.9%	0.465
Positive anti-SSA antibodies	78 (84.8%)	1008 (83.2%)	10.1%	0.689
Positive anti-SSB antibiodies	37 (41.1%)	525 (45.1%)	13.7%	0.459
Positive RF	40 (46.5%)	516 (47.9%)	21%	0.803
Hypergammaglobulinemia	40 (57%)	516 (48.9%)	21%	0.164
MSGB with a focus score ≥ 1	34 (58.6%)	373 (58.4%)	52.8%	0.971
Constitutional involvement	27 (30.7%)	206 (16.9%)	13.8%	0.001
Lymphadenopathic involvement	16 (18.2%)	131 (10.7%)	14%	0.032
Glandular involvement	28 (30.8%)	386 (31.3%)	12.8%	0.923
Articular involvement	36 (39.1%)	532 (43%)	12.3%	0.464
Muscular involvement	2 (2.2%)	17 (1.4%)	13.2%	0.504
Cutaneous involvement	17 (19.1%)	211 (17.1%)	12.9%	0.624
PNS involvement	7 (7.9%)	49 (4%)	13.1%	0.078
CNS involvement	3 (3.4%)	19 (1.5%)	13.3%	0.192
Renal involvement	3 (3.4%)	34 (2.8%)	13.1%	0.732
Gastrointestinal/hepatobiliary involvement	3 (3.3%)	33 (2.7%)	13.1%	0.711
Haematologic involvement	23 (25.6%)	425 (34.5%)	13.1%	0.084
Biologic involvement	53 (58.9%)	672 (54.5%)	12.8%	0.424

*The 3 patients with ILD and concomitant airways disease were also included. Legend: SjD- primary Sjögren's syndrome; ANA – antinuclear antibodies; RF – rheumatoid factor; MSGB – minor salivary gland biopsy; PNS – peripheral nervous system; CNS – central nervous system

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Background: Upadacitinib (UPA), an oral JAK inhibitor (JAKi), had its efficacy and safety profiles evaluated in the extensive SELECT-RA program in patients (pts) with moderate-to-severe Rheumatoid Arthritis (RA),

014 – TABLE I. Data of demographic and anthropometric features, co morbidities at baseline, RA therapy, parameters of active disease at 0 and 12months and reasons to discontinue Upadacitinib.

	Baseline	12months	
Demographic and anthropometric data			
Age (years)	58.27 (11.79)		
Sex n (%) feminine	103 (88.6)		
Race n (%)	Caucasian – 103 (88.55) Non-Caucasian - 5 (4.20) Missing data – 11 (9.24)		
Weight in Kg, mean (sd)	67.65 (12.42)		
BMI mean (sd)	25.92 (4.98)		
Comorbidities n (%)			
Total of patients with data on comorbidities	32 (26.9)		
- Essential Arterial Hyper tension	26 (21.85)		
- Diabetes Mellitus	8 (6.72)		
- Dyslipidaemia	1 (0.8)		
- Osteoporosis	3 (2.52)		
- CV diseaseNo comorbidities	4 (3.36)		
Total of patients with missing data	14 (11.76)		
Smoking habits n (%)	73 (61.34)		
Unknown	11 (9.2)		
Ex-smoker	9 (7.9)		
Smoker	16 (13.4)		
Non-smoker	56 (47.1)		
Missing data	27 (22.7)		
RA disease duration mean, in years (sd)	18.24 (10.68)		
Serology			
- RF n (%) patients	83 (69.75)		
- ACPA n (%) patients	82 (68.90)		
RA previous therapy n(%) patients			
- bDMARDs	89 (74.79)		
- tsDMARDs	3 (2.52)		
RA concomitant therapy n(%) patients			
- NSAIDs	28 (23.53)	31 (26.05)	
- Corticosteroids	64 (53.78)	43 (36.13)	
- csDMARDs#	78 (65.55)	70 (58.82)	
bDMARD or tsDMARD -1st treatment n (%)			
- bDMARDs	89 (74.79)		
- Anti TNF	73 (61.34)		
- Anti IL-6	12 (10.08)		
- Anti CD 20	4 (3.36)		
- tsDMARD	30 (25.21)		
- UPA	27 (22.69)		
- Tofacitinib	2 (1.68)		
- Baricitinib	1 (0.84)		
UPA line treatment - n(%) patients			
- 1stline	27 (22.69)		
- 2nd line	41 (34.45)		
- 3rd line or more	51 (42.86)		
Days under Upadacitinib (mean, sd)	344.93 (147.53)		
Years under Upadacitinib (mean, sd)	0.95 (0.40)		
	0 months	12 months	P value
Disease activity			
DAS28 3v, mean (sd)	4.38 (1.33)	2.73 (0.98)	<0.001*1
CDAI, mean (sd)	23.43 (12.48)- 98 patients	7.31 (6.76)	<0.001*1
SDAI, mean (sd)	24.54 (12.80) – 95 patients	7.73 (6.81)	<0.001*1

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014 – TABLE I. Continuation

	0 months	12 months	P value
Remission at 12 months– n (%) patients			
DAS 28 3V <2.6	48 (40.34)		
CDAI ≤2.8	16 (20.781)		
SDAI <3.3	17 (22.081)		
LDA at 12 months – n(%) patients			
2.6≤DAS 28 3v≤3.2	19 (15.97)		
2.8<CDAI <10	42 (54.551)		
3.3<SDAI <11	41 (53.251)		
Patient Report Outcomes, mean (sd)			
a) Pain VAS	62.51 (23.74)	34.58 (26.59)	<0.001*1
b) PGA	65.10 (23.10)	36.14 (25.59)	<0.001*1
c) HAQ- DI	1.31 (0.65)	0.8 (0.6)	<0.001*1
d) FACIT	27.03 (10.82)	34.71 (12.07)	0.017*1
e) SF – 36 – PCS	34.55 (22.81)	43.72 (27.57)	0.19*1
Routine labs			
a) ESR (mm1stH) –– mean (SD)	26.55 (22.24)	20.78 (16.54)	
b) CRP (mg/dl) –– mean (SD)	1.19 (1.86)	0.41 (0.61)	
	Safety	12 months	
Discontinuation of Upadacitinib patients (%)			
- Total	28 (23.53)		
• Therapeutic Ineffectiveness	12 (10.08)		
• Adverse events	15 (12.61)		
• Other /unknown	1 (0.84)		
Adverse events (AE) n(%) patients			
Total AE / 100 patients-years	18 (15.13) / 0.15		
. Infections a)	3 (2.52)		
. GI manifestation b)	2 (1.68)		
. Skin manifestation c)	1 (0.84)		
. Cancer d)	1 (0.84)		
. Hematologic (cytopenia) e)	2 (1.68) / 8 (6.72)		
. Other/unknown f)	0		
. MACEs, VTE events or deaths	(12.61)		
AE leading to definitive discontinuation			

UPA -Upadacitinib, SD: standard deviation; PGA- patient global assessment, ESR – Erythrocyte sedimentation rate, CRP – C reactive protein, LDA- low disease activity, RF- rheumatoid factor, ACPA – anti-citrullinate protein antibodies; csDMARDS – conventional synthetic Disease Modifying Antirheumatic Drugs, bDMARDs- biologic Disease Modifying Antirheumatic Drugs; tsDMARDs -targeted synthetic Disease Modifying Antirheumatic Drugs, UPA. Upadacitinib; NSAIDs – nonsteroidal anti-inflammatory drugs, HAQ-DI - Health Assessment Questionnaire Disability Index; IL-6i. IL-6 inhibitor; CV- cardiovascular; PGA. patient global assessment; FACIT (Functional Assessment of Chronic Illness Therapy) and SF-36-PCS (Short Form 36 physical component summary); CDAI - Clinical Disease Activity Index; SDAI. Simple Disease Activity Index; TNFi. TNF inhibitor; # - leflunomide, methotrexate and sulfasalazine; 1- total of patients with data on CDAI and SDAI - 77 patients .*1- application of t student for paired samples ,2 tails- <.001. AE – adverse events. a) pneumoniae; aftous stomatitis, Herpes zoster infections; b) nausea, vomits; c) folliculitis, d) testicular cancer; e) haematological lupus and neutropenia; f) creatin phosphokinase augmentation. Pulmonary nodules. MACEs – major advance cardiovascular events, VTE – venous thromboembolism.

014 – TABLE II. Difference between DAS 28 mean at 12 months in patients with or without Upa and csDMARDs and in patients naive non-naive for ts/bDMARDs *application of ts-student test.

	Upadacitinib with csDMARds	Upadacitinib monotherapy	P value*	Upadacitinib in 1st line therapy	Upadacitinib in non naïve ts/bDMARD	Pvalue*
DAS 28 3V mean (SD) baseline	4.37 (1.34)	3.87 (1.46)	0.055	4.42 (1.23)	4.15 (1.44)	0.37
DAS 28 3V mean (SD) 12 months	2.89 (1.01)	2.49 (0.9)	<0.001	2.35 (1.08)	2.44 (1.15)	<0,001

both as monotherapy and in combination with conventional synthetic (cs) Disease Modifying Antirheumatic Drugs (DMARDs). Real-world (RW) effectiveness and safety data on UPA in patients with moderate-to-severe RA is still scarce.

Objectives: To investigate the RW effectiveness and safety of UPA treatment of moderate to severe RA pts included in the Portuguese registry Reuma.pt.

Methods: RAPORT is a multicentre, single-country, non-interventional study of adult RA pts treated with UPA 15mg once a day (QD), included in the Reuma.pt. All procedures followed local routine clinical practice in the management of RA and UPA usage. Pts were followed-up for 12 months and those with available data on disease activity at baseline (UPA initiation) and 12 months (>270-450 days from UPA initiation) were included.

The primary endpoint was the proportion of pts achieving DAS28-3V remission (Disease Activity Score-28 3 variables) (<2.6) at 12 months. Secondary and exploratory efficacy endpoints included the proportion of pts achieving - DAS28- 3V Low Disease Activity (LDA) ≤3.2, CDAI (Clinical Disease Activity Index) remission ≤2.8 and SDAI (Simplified Disease Activity Index) remission ≤3.3 at 12 months; and the change from baseline to 12 months in pt-reported outcomes (PROs), with the results being presented using descriptive statistics. Safety was assessed by collecting adverse events (AE) data and reported as numbers of AEs using descriptive statistics.

Results: From 221 pts registered in Reuma.pt we analyzed data from 119 pts (102 pts excluded due to missing data). Pts demographics and disease characteristics at UPA initiation are summarized in Table 1. 22.7% of pts started UPA as a first-line ts/b DMARDs (targeted synthetic/ biologic) and 34.5% of patients were on UPA monotherapy. At 12 months, DAS28-3V remission was achieved in 48 (40.3%) pts and DAS28-3V LDA/remission in 67 pts (56.3%). Higher percentages were found when excluding patients that stopped UPA due to adverse events, 49% and 67.2%, respectively. (Table 1). Also pts had statistically significant improvements (p<0.001) in DAS 28 3v, CDAI and SDAI. Lower DAS 3v mean were observed in UPA monotherapy and UPA as first line groups (Table 2).

Improvements from baseline to 12 months were observed also across different PROs, including pain Visual Analogue Scale, Patient Global Assessment, Health Assessment Questionnaire Disability Index, Functional Assessment of Chronic Illness Therapy and Short Form 36 physical component summary (Table 1). A total of 28 pts (23.5%) discontinued UPA during the follow-up period. The most common reasons for discontinuation were AEs (n=15 [12.6%]) and lack of effectiveness (n=12 [10.1%]). Infections were the most common AE reported (n=3 [2.5%]). No MACEs, VTE events or deaths were reported.

Conclusion: The RAPORT study confirms that UPA 15mg QD is effective for moderate-to-severe RA treatment in RW practice, with more than 56 % of pts achieving DAS23 v3 remission/ LDA at 12 months Significant Improvements in CDAI, SDAI and PROs were also observed. UPA was well tolerated with a RW safety profile consistent with that observed in RCT.

021 - THE VALUE OF NEUTROPHIL/ LYMPHOCYTE AND PLATELET/ LYMPHOCYTE RATIOS IN THE DIAGNOSIS AND FOLLOW-UP OF RHEUMATOID ARTHRITIS-RELATED INTERSTITIAL LUNG DISEASE – A SINGLE CENTRE STUDY

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Introduction: Neutrophil/lymphocyte (NLR) and platelet/lymphocyte (PLR) ratios can be easily obtained in clinical practice and have emerged as markers of inflammation and potential screening tools for interstitial lung disease (ILD). NLR and PLR also seem to have implications in treatment response and ILD prognosis.

We aim to evaluate the performance of NLR and PLR at screening and during follow-up in a cohort of rheumatoid arthritis (RA)-related ILD from a tertiary hospital.

Methods: We performed a retrospective study including RA patients (pts) followed in our department, who fulfilled 2010 ACR/EULAR classification criteria for RA, aged ≥18 years at diagnosis, without history of ILD before RA diagnosis. Pts with other pulmonary disorders were excluded, as well as patients whose blood tests were taken on prednisolone >10mg/day or equivalent or with active infections.

ILD was diagnosed based on HRCT scan. Progressive pulmonary fibrosis (PPF) was evaluated according to 2022 ATS/ERS/JRS/ALAT guidelines.

Demographic data, NLR, PLR, CRP and DAS28-ESR were collected from RA pts, at RA and ILD diagnosis and at last appointment. Among pts with ILD, FVC and DLCO were retrieved, as well as medication used.

The normality of data distribution was evaluated by Shapiro-Wilk test. Continuous variables are presented as medians and interquartile range (IQR) and categorical variables as absolute values and frequencies. Com-

021 – TABLE I. Comparison between patients with and without interstitial lung disease at RA diagnosis and at last appointment

	ILD (N=41)	Non-ILD (N=63)	p-value
Male	17 (41.5%)	18 (28.6%)	0.174
Positive RF	39 (95.1%)	51 (81%)	0.039
Positive ACPA	38 (92.7%)	51 (81%)	0.096
RA diagnosis			
Age	61 [50.5-68]	52 [42-61]	0.012
NLR	2.07 [1.4-3.09]	2.45 [1.66-3.64]	0.274
PLR	114.7 [85.56-154.74]	142.28 [107.69-205.96]	0.058
CRP (mg/L)	8 [2-17.2]	7 [2.85-17.15]	0.924
Last appointment			
RA duration	15 [8-20.5]	8 [5-12]	<0.001
NLR	3.28 [1.87-5.96]	2.29 [1.43-3.17]	0.007
PLR	153.15 [95.95-195.34]	134.18 [101.66-193.7]	0.908
CRP (mg/L)	5.7 [1.9-21.45]	3.3 [1.8-10.7]	0.090
DAS28-ESR	3.5 [3.08-4.86]	3.32 [2.72-4.34]	0.298

Legend: ILD – interstitial lung disease; RF – rheumatoid factor; ACPA – anticitrullinated peptide antibodies; RA – rheumatoid arthritis; NLR - neutrophil/lymphocyte ratio; PLR - platelet/lymphocyte ratio; CRP – C-reactive protein; DAS – disease activity score; ESR – erythrocyte sedimentation rate

021 – TABLE II. Comparison between patients with and without progressive pulmonary fibrosis at ILD diagnosis and at last appointment

	Progressor (N=21)	Non-progressor (N=12)	p-value
ILD diagnosis			
NLR	2.67 [2-3.64]	2.58 [1.72-3.19]	0.767
PLR	108.77 [86.4-175.81]	150.63 [122.54-158.23]	0.134
CRP	5.05 [3.75-10]	3 [2.45-6.68]	0.165
Last appointment			
Δ NLR (compared to ILD diagnosis	0.73 [-0.86-5.7]	0.7 [-0.25-1.2]	0.611
Δ PLR (compared to ILD diagnosis	46.46 [-66.86-77.16]	-2.79 [-22.27-14.86]	0.350
Δ CRP (compared to ILD diagnosis	0.3 [-6.52-12.03]	0.15 [-0.92-18.72]	0.856
Treated with immunosuppressants *	9 (42.9%)	5 (41.7%)	0.947
Treated with antifibrotics	13 (61.9%)	3 (25%)	0.126
Death related to ILD	5 (31.2%)	1 (6.2%)	0.747

* only patients in whom the prescription of the immunosuppressant took into account the presence of ILD or was made specifically for its treatment

Legend: ILD – interstitial lung disease; NLR - neutrophil/lymphocyte ratio; PLR - platelet/lymphocyte ratio; CRP – C-reactive protein

parisons between pts with and without ILD were performed using Mann-Whitney and exact Fisher tests. Paired data were analysed using Wilcoxon signed-rank test. Spearman´s correlations between NLR, PLR, CRP, DAS28-ESR, FVC and DLCO were evaluated. ROC analysis assessed the best cutoff value of NLR and PLR for detecting RA-ILD. A significance level of 5% was considered. SPSS version 29.0 (IBM Corp, Armonk,

NY, USA) was used.

Results: We included 104 pts, 69 (66.3%) females, with median age at last appointment of 68 [55-75] years and median RA duration of 10 [6-14] years. Most pts were positive for RF (N=90; 86.5%) and ACPA (N=89; 85.6%). Forty-one (39.4%) pts had ILD, from whom 34 (82.9%) had UIP pattern on HRCT.

Table I compares pts with and without ILD, at RA diagnosis and at last appointment.

ROC curves demonstrated that neither NLR (AUC 0.429) nor PLR (AUC 0.378) were useful for ILD diagnosis (11 missings).

At ILD diagnosis, NLR had a moderate correlation with PLR (r=0.464; p=0.003), but both did not correlate with CRP, DAS28-ESR, FVC and DLCO. The same occurred at last appointment.

Twenty-one (63.6%; 8 missing data) pts presented PPF. Table II compares progressors and non-progressors.

Antifibrotics (AF) were used in 16 (39%) pts and immunosuppression (IS) were started/switched due to ILD in 13 (31.7%) pts. Both NLR and PLR increased during treatment, (AF: NLR 3.2 [IQR 2.8-4.84] to 3.73 [IQR 2.75-10.18]; p=0.088; PLR 143.02 [IQR 90.67-165.75] to 144.07 [IQR 94.12-276.4]; p=0.046]; IS: NLR 3.43 [IQR 2.26-6.57] to 3.64 [1.71-10.46]; p=0.753; PLR 134.25 [IQR 88.16-193.75] to 139.84 [IQR 70.42-257.3; p=0.972]).

Conclusion: In our cohort neither NLR nor PLR were useful to predict ILD, when evaluated at RA diagnosis. However, pts with ILD had a higher NLR at last appointment, denoting a higher inflammatory state.

PLR might be a potential prognosis biomarker, as pts with PFF had an increase, although not statistically significant, in PLR during follow-up, while non-progressors had a decrease,

In the future, larger and prospective studies are essential to validate these results.

024 - SEXUAL DYSFUNCTION IN FEMALE PATIENTS WITH SYSTEMIC SCLEROSIS: PRELIMINARY DATA FROM A MULTICENTRE STUDY

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Backgroung: Sexual dysfunction (SD) is common in female patients with systemic sclerosis (SSc), with a reported prevalence of up to 86.6%.[1-10] Several factors may contribute to SD in those patients. To date, no studies have addressed sexual distress in patients with SSc.

Aim: To evaluate and compare SD and sexual distress in women with SSc to age-matched healthy controls (HC) and to determine the potential impact of clinical features on sexual function and sexual distress.

Methods: We performed a multicentre cross-sectional study including adult women with a clinical diagnosis of SSc and HC who attended general practitioner. HC group included adult women without recent pregnancy, breastfeeding, gynecologic or endocrine disorders unrelated to SSc, active cancer, severe organ failure, or other inflammatory rheumatic diseases. Participants were invited to complete an anonymous paper questionnaire assessing demographics, sexual function [Female Sexual Function Index (FSFI)], sexual distress [Female Sexual Distress Scale-Revised (FSDS-R)] and gynecological/obstetric history. Additionally, in the SSc group, disease characteristics, quality of life, symptoms of depression and anxiety and additional questions regarding sexual life were collected.SD was defined as FSFI<26.5 and sexual distress was defined as FSDS-R≥11. Comparisons were made using T-tests, Mann-Whitney and Chi-squared tests with a significance threshold of p<0.05.

Results: A total of 49 SSc female patients [mean age±SD: 58.41±13.87 years] and 12 HC [47.33± 2.46 years; p=0.015] were included. Among SSc patients, 46 (94%) fulfilled the 2013 ACR/EULAR classification criteria, with a mean disease duration of 16.67±11.60 years. Clinical subtypes were: limited cutaneous SSc in 26 (53%), diffuse cutaneous SSc in 15 (31%), SSc sine scleroderma in 3 (6%), Very Early Diagnosis of Systemic Sclerosis in 2 (4%), and SSc-overlap syndromes in 3 (6%) patients.

SSc patients had fewer years of education [median (IQR): 12.00 (6.00) vs 14.50 (6.00); p=0.009]. No significant differences were found in obstetric history or marital status between the groups (see Table1). SSc patients had significantly lower FSFI scores [11.40 (16.60) vs 31.40 (4.65); p<0.001], with lower scores across all six domains. SD (FSFI<26.55) was present in 42/46

024 – TABLE I. Characteristics of Patients with Systemic Sclerosis and Healthy Controls

	All patients (N=61)	SSc patients (N=49)	Healthy-controls patients (N=12)	p-value*
Demographics				
Current age, years - mean±SD	56.23±14.21	58.41±13.87	47.33±12.46	0.015
BMI, Kg/m2 - median (IQR)	23.73 (4.74)	23.66 (4.64)	24.39 (6.69)	0.293
Education[D], years - median (IQR)	12.00 (7.00)	12.00 (6.00)	14.50 (6.00)	0.009
Current employment status, n (%)		0.002		
Student	1 (2)	0	1 (8)	
Housemaid	2 (3)	2 (4)	0 (0)	
Employed full-time	26 (43)	15 (31)	11 (92)	
Employed part-time	1 (2)	1 (2)	0 (0)	
Prolonged medical leave	2 (3)	2 (4)	0 (0)	
Unemployed	9 (15)	9 (18)	0 (0)	
Retired	20 (33)	20 (41)	0 (0)	
Marital status, n (%)		0.346		
Single	9 (15)	7 (14)	2 (17)	
Married/cohabitation	37 (61)	28 (57)	9 (75)	
Divorced	4 (7)	3 (6)	1 (8)	
Widow	11 (18)	11 (22)	0 (0)	
Habits				
Physical activity[A], n (%)		0.001		
Sedentary	25 (43)	25 (54)	0 (0)	
Once a week	20 (34)	15 (33)	5 (42)	
2 to 3 times a week	8 (14)	4 (9)	4 (33)	
4 or more times a week	5 (9)	2 (4)	3 (25)	
Gynaecological and obstetric history				
Postmenopausal status, n (%)	40 (66)	35 (71)	5 (42)	0.088
Age at menopause[A], years – median (IQR)	50.00 (5.00)	49.00 (5.00)	54.00 (6.00)	0.025
Number of pregnancies – median (IQR)	2.00 (1.00)	2.00 (6.00)	2.00 (2.00)	0.489
Number of deliveries – median (IQR)	1 (2.00)	2 (2.00)	0 (2.00)	0.075
Number of caesarean sections -median (IQR)	0 (1.00)	0 (1.00)	0 (1.00)	0.567
Number of episiotomies – median (IQR)	0 (1.00)	0 (1.00)	0 (1.00)	0.938
Sexual health history				
FSFI[b] - median (IQR)	15.50 (23.25)	11.40 (16.60)	31.4 (4.65)	<0.001
Desire	2.40 (2.40)	1.60 (1.80)	3.60 (1.35)	0.008
Arousal	1.95 (4.05)	1.20 (3.40)	5.40 (1.28)	<0.001
Lubrification	2.55 (5.40)	0.95 (3.30)	6.00 (0.15)	<0.001
Orgasm	2.40 (5.20)	1.20 (3.60)	6.00 (0.50)	<0.001
Satisfaction	4.00 (3.30)	3.20 (2.80)	5.60 (0.90)	<0.001
Pain	2.00 (5.60)	1.20 (3.30)	6.00 (0.50)	<0.001
FSFI< 26.55[β] - n(%)	42 (75)	42 (91)	0 (0)	<0.001
FSDS-R[β] - median (IQR)	12 (21.00)	13 (24.00)	10 (11.00)	0.504
FSDS-R ≥11[β]- n (%)	28 (52)	23 (55)	5 (42)	0.423

ΔMissing data <5%;[β]Missing data <20%.
*Independent samples T-test or Mann-Whitney test for continuous variables, and Chi-square test for categorical variables. p-value considered significant if <0.05.
Exclusion criteria: pregnancy, <6 months post-partum, nursing/breastfeeding, congenital or iatrogenic female genital tract diseases (e.g. pelvic radiotherapy), endocrine dysfunction not related to SSc (e.g. hypogonadism, hypopituitarism), active gynaecological and/or breast cancer, cardiac failure NHYA grade III or higher, hepatic failure, unstable angina pectoris or any other inflammatory rheumatic disease in the controls group.
BMI, Body Mass Index; FSDS-R, Female Sexual Distress Scale-Revised; FSFI, Female Sexual Function Index; IQR, Interquartile Range; SD, Standard Deviation; SSc, Systemic Sclerosis.

(91%) of SSc patients vs 0/10 of the HC (p<0.001). Sexual distress (FSDS-R≥11) was common in both groups [23/42 (55%) vs 5/12 (42%); p=0.423].

Among SSc patients, 19/45 (42%) reported disease-related impact on their sexuality. The main reasons for reduced sexual activity were SSc-related symptoms (12/37 patients, 32%), lack of a partner (30%), and personal choice (19%). Of those reporting SSc-related causes, most cited vaginal or oral dryness (16/35 patients, 46%), followed by fatigue (29%), dyspareunia (17%), dyspnoea (17%), reduced pelvic mobility (14%), hand disability or digital ulcers (14%), depression (14%), altered body image (11%), vaginal stenosis (6%), and abdominal pain (3%); and 5 (14%) revealed other reasons. Only 2/46 (4%) SSc patients had ever discussed sexual issues with their rheumatologist, although 22/38 (58%) expressed a desire to do so.

Conclusion: SD is highly prevalent in women with SSc, with significantly lower sexual function scores across all domains compared to HC. Although sexual distress was also common, no significant difference was found between groups. These findings underscore the need for clinicians to address sexual health in SSc care to ensure a holistic approach.

Study limitations include volunteer bias, small sample size, and demographic differences between groups. Additionally, missing data may reflect underreporting of sexual problems. Further studies are needed to confirm these findings.

026 - IS SERUM PROCALCITONIN RELIABLE FOR IDENTIFYING SEPTIC ARTHRITIS AND BACTEREMIA?

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Background: Septic arthritis is a medical emergency that demands timely diagnosis and treatment to avoid joint destruction and systemic complications. Recognizing more severe presentations, such as those associated with bacteremia, is vital to ensure appropriate clinical management. Procalcitonin (PCT) has gained attention as a biomarker of bacterial infection, particularly in systemic contexts like sepsis. However, its diagnostic role in localized infections such as septic arthritis remains unclear.

Objectives: To evaluate the diagnostic utility of serum PCT in patients with septic arthritis, with particular emphasis on its association with bacteremia and inflammatory markers. We also aimed to assess optimal cut-off values for PCT and its performance through ROC analysis.

Methods: Retrospective, cross-sectional, single-center study including adult patients diagnosed with septic arthritis between 2014 and 2023. Inclusion criteria were age ≥18 years, microbiologically confirmed infection by synovial fluid culture, and serum PCT mea-

026 – TABLE I. Clinical and laboratory characteristics of the study cohort, stratified by procalcitonin (PCT) levels.

	Whole Cohort N = 25 (100%)	PCT < 0.5 ng/mL N = 18 (72%)	PCT ≥ 0.5 ng/mL N = 7 (28%)	p-value
Age, median (IQR)	71.1 ± 10.9	71.1 ± 10.9	69.14 ± 11.8	0.657
Male, n (%)	13 (52.0)	10 (55.6)	3 (42.9)	0.673
Native joint, n (%)	13 (56.5)	9 (50.0)	4 (57.1)	0.660
Bacteriemia, n (%)	5 (26.3)	4 (22.2)	1 (14.3)	1.000
Diabetes Melitus, n (%)	4 (19.0)	3 (16.7)	1 (14.3)	1.000
Imunossupression, n (%)	5 (23.8)	4 (22.2)	1 (14.3)	1.000
Crystals in synovial fluid, n (%)	1 (6.3)	0 (0.0)	1 (14.3)	0.313
Hemoglobin (g/dL), median (IQR)	11.60 (3.45)	12.25 (3.33)	10.20 (1.90)	0.085
Leucocytes (G/L), median (IQR)	10.4 (6.45)	10.20 (5.06)	13.18 (6.40)	0.110
C reactive protein (mg/dL), median (IQR)	18.2 (23.20)	10.73 (15.55)	32.31 (9.60)	0.001
Synovial Leucocytes (cells/µL), median (IQR)	57063.5 (71211.0)	50875.0 (20196.0)	73424.0 (20196.0)	0.517
Synovial PMNs (%), median (IQR)	94.0 (3.75)	94.0 (4.00)	94.0 (4.00)	0.517

Continuous variables are presented as median (IQR) or mean ± standard deviation as indicated. Categorical variables are expressed as frequency and percentage. Patients were stratified into two groups according to serum PCT levels: < 0.5 ng/mL and ≥ 0.5 ng/mL. The p-values reflect comparisons between these two groups using the Mann–Whitney U test for continuous variables and Fisher's exact test for categorical variables. Bold indicates statistically significant results (p < 0.05).

surement at diagnosis. Demographic, clinical, and laboratory data were collected. Elevated PCT was defined as ≥0.5 ng/mL. Continuous variables were reported as means or medians; categorical variables as frequencies and percentages. Statistical analysis included the Chi-squared or Fisher's exact test for categorical variables, and Mann–Whitney U test for continuous variables. ROC analysis was used to assess the diagnostic performance of PCT for predicting bacteremia. Sensitivity and specificity were calculated for predefined cut-offs.
Results: A total of 25 patients were included (52% male, mean age 71.1 ± 10.9 years). Native joint involvement occurred in 56.5% of cases. Synovial fluid analysis was performed in 10 patients, revealing a median leukocyte count of 57,064/µL and 94% polymorphonuclear neutrophils. Crystals were found in one case (6.3%). Blood cultures were performed in 76% (n = 19), with 5 positive results (26.3%). The median CRP was 18.2 mg/dL and median PCT was 0.22 ng/mL. Only 7 patients (28%) had PCT ≥ 0.5 ng/mL. PCT showed a statistically significant correlation with CRP (p = 0.001), but no association with sex, age, prosthesis, diabetes, immunosuppression, or crystals (Table 1). ROC analysis for PCT as a predictor of bacteremia yielded an AUC of 0.414. At the 0.5 ng/mL cut-off, sensitivity was 20% and specificity 64.3%.
Discussion: In this cohort of patients with microbiologically confirmed septic arthritis, serum PCT demonstrated limited diagnostic utility, largely due to its very low sensitivity. The majority of confirmed cases had normal or slightly elevated PCT, showing that a negative result does not exclude septic arthritis. PCT also lacked discriminatory power for predicting bacteremia. Its correlation with CRP suggests it may reflect systemic inflammation, but it fails to provide reliable diagnostic value. Study limitations include the small sample size, retrospective design, and absence of a control group without septic arthritis, precluding specificity analysis for diagnosis.
Conclusion: Serum procalcitonin lacks the sensitivity required for diagnosing septic arthritis and does not reliably predict bacteremia, underscoring the need for a thorough clinical and microbiological approach.

032 - FUNCTIONAL SARCOPENIA PHENOTYPE IN SYSTEMIC SCLEROSIS: PRELIMINARY RESULTS FROM A CROSS-SECTIONAL STUDY

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Background: Sarcopenia is a recognized complication of systemic sclerosis (SSc), but its true prevalence may be underestimated when based solely on structural criteria such as appendicular skeletal muscle mass index (ASMMI). The updated European Working Group on Sarcopenia in Older People (EWGSOP2) criteria emphasize the primacy of muscle strength in sarcopenia diagnosis.
Objective: This study aimed to explore the prevalence and clinical associations of sarcopenia in patients with SSc using the updated EWGSOP2 criteria, and to explore the distinction between functional and structural sarcopenia phenotypes.
Patients and methods: A cross-sectional study was conducted at the SSc outpatient clinic of Unidade Local de Saúde de Santa Maria (Portugal) between August 2024 and April 2025. Adult patients fulfilling the 2013 ACR/EULAR classification criteria for SSc were consecutively included. Exclusion criteria comprised long-term corticosteroid use (>3 months), chronic kidney disease, active malignancy or infection, overlap syndromes, and osteoporosis. Screening was performed using the SARC-F questionnaire (cut-off ≥4), and eligible patients underwent functional and structural assessments according to EWGSOP2, which defines probable sarcopenia as low muscle strength, confirmed by reduced muscle quantity or quality, and, when physical performance is also impaired, classifies it as severe. Handgrip strength was measured using a Jamar® dynamometer, or chair stand test when not feasible. Muscle quantity was assessed via dual-energy X-ray absorptiometry (DXA), calculating the ASMMI. Gait speed was assessed over a 4-meter walk test. Malnutrition was defined according to the European Society for Clinical Nutrition and Metabolism (ESPEN) criteria.
Results: Among the 61 SSc patients screened, 17 were included (mean age 57.4 ± 14.4 years; 88.2% female); 44 (72.1%) were excluded, most commonly due to corticosteroid use (n = 14; 31.8%) or osteoporosis (n = 13; 29.5%). Two patients (4.5%) died after completing the SARC-F questionnaire but before further assessment. Six patients (35.3%) had SARC-F ≥4 and five (83.3%) of these had low muscle strength, meeting criteria for probable sarcopenia, yet none met the ASMMI threshold for confirmed or severe sarcopenia (mean of 6.6 ± 0.9 kg/m²). Two patients had impaired performance

032 – TABLE I. Baseline characteristics of the study population stratified by SARC-F score.

	All (n=17)	SARC-F < 4 (n=11)	SARC-F ≥ 4 (n=6)	p value
Age, years, mean ± SD	57.4 ± 14.4	61.0 ± 12.6	50.8 ± 16.3	0.228[c]
<65 years, n (%)	13 (76.5)	8 (72.7)	5 (83.3)	1.000+
≥65 years, n (%)	4 (23.5)	3 (27.3)	1 (16.7)	
Sex, n (%)			-	
Female	15 (88.2)	9 (81.8)	6 (100.0)	-
Ethnicity, n (%)			-	
Caucasian	14 (82.4)	9 (81.8)	5 (83.3)	-
Disease characteristics				
Disease subset, n (%)				0.584+
Non-diffuse cutaneous systemic sclerosis	13 (76.5)	9 (81.8)	4 (66.7)	2 (33.3)
Diffuse cutaneous systemic sclerosis	4 (23.5)	2 (18.2)		
Disease duration, years, median (IQR)	13.4 (16.8)	16.8 (9.4)	12.4 (27.7)	-
Age at diagnosis, years, mean ± SD	48.7 ± 14.4	52.7 ± 8.5	41.5 ± 20.5	0.315[c]
Age at first symptom, years, mean ± SD	39.3 ± 16.1	44.2 ± 10.8	30.4 ± 21.1	0.159[c]
Nailfold capillaroscopy*, n (%)				
Active scleroderma pattern	6 (35.3)	5 (45.5)		-
Late scleroderma pattern	5 (29.4)	2 (18.2)	1 (16.7)	-
Early scleroderma pattern	3 (17.6)	3 (27.3)	3 (50.0)	-
Non-specific / Normal	2 (11.8)	1 (9.1)	0 (0.0)	-
Advanced pattern (active / late)	11 (64.7)	7 (63.6)	1 (16.7)	-
Modified Rodnan Score, median (IQR)	4 (12.0)	4 (11.0)	4 (80.0)	1.000+
Clinical features, n (%)			5 (28.0)	-
Raynaud's phenomenon	17 (100.0)	11 (100.0)	6 (100.0)	-
Arthralgia / Arthritis	13 (76.5)	7 (63.6)	6 (100.0)	0.237+
Telangiectasias	12 (70.6)	8 (72.7)	4 (66.7)	-
Calcinosis	5 (29.4)	4 (36.4)	1 (16.7)	-
Dyspnea	3 (17.6)	3 (27.3)	0 (0.0)	0.515+
Organ involvement, n (%)				
Gastroesophageal involvement	9 (52.9)	5 (45.5)	4 (66.7)	-
Reduced DLCO (<75% predicted)	5 (29.4)	5 (45.5)	0 (0.0)	0.102+
Interstitial lung disease (HRCT evidence)	4 (23.5)	2 (18.2)	2 (33.3)	-
Other organ involvement†	3 (17.6)	3 (27.3)	0 (0.0)	-
Laboratory parameters				
Immunologic profile, n (%)				
Antinuclear antibodies positivity	15 (88.2)	10 (90.9)	5 (83.3)	-
Anti-centromere antibody	11 (64.7)	9 (81.8)	2 (33.3)	0.109+
Anti-Scl-70 antibody	3 (17.6)	0 (0.0)	3 (50.0)	0.029+
Other autoantibodies#	3 (17.6)	2 (18.2)	1 (16.7)	-
Inflammation				
C-reactive protein, mg/dL, median (IQR)	0.2 (0.3)	0.2 (0.3)	0.2 (0.3)	-
Erythrocyte sedimentation rate, mm/h, mean ± SD	25.1 ± 13.6	24.8 ± 9.3	25.5 ± 20.5	-
Nutritional and metabolic				
Creatine kinase, U/L, median (IQR)*	60.0 (180.0)	91.5 (74.0)	71 (257.0)	-
25-hydroxyvitamin D, ng/mL, mean ± SD*	31.0 ± 6.7	28.2 ± 9.8	29.2 ± 5.9	-
Anthropometrics				
Body Mass Index (BMI), mean ± SD*	25.0 ± 6.0	24.6 ± 2.0	24.7 ± 6.5	-
Weight, kg, mean ± SD*	59.1 ± 10.3	60.9 ± 7.6	59.3 ± 11.2	-
Height, cm, median (IQR)*	157.0 (15.0)	151.5 (24.3)	154.0 (13.3)	-
Malnutrition[d], n (%)	1 (5.9)	0 (0.0)	1 (16.7)	-

IQR - Interquartile range. SD - Standard deviation. SARC-F: strength, assistance with walking, rise from a chair, climb stairs, and falls. DLCO – Diffusing capacity of the lungs for carbon monoxide. HRCT – High-resolution computed tomography. Anti-Scl-70 – anti-topoisomerase I antibodies.
*1 missing value for nailfold capillaroscopy; 3 missing values for creatine kinase result; 6 missing values for 25-hydroxyvitamin D result; 2 missing values each for BMI, weight, and height results.
#Other autoantibodies (e.g., anti-PM/Scl-75, anti-fibrillarin, anti-RNA polymerase III) were detected in only one patient each. [d]Malnutrition according to European Society for Clinical Nutrition and Metabolism (ESPEN) criteria. †Includes pulmonary hypertension, heart failure, and muscle involvement (myositis), each present in one patient only.
[c] Mann-Whitney U test. + Fisher's exact test; statistically significant results have the p-value bolded. Statistical comparisons were only performed for variables with clinical relevance. No statistical test was applied to variables with limited data availability, high intra-group variability, or negligible between-group differences.

032 – TABLE II. Sarcopenia staging (EWGSOP2), functional performance, and DXA-derived metrics in patients with SARC-F ≥ 4.

	SARC-F ≥ 4 (n=6)
DXA - body composition+, mean ± SD	
Fat mass (kg)	21.2 ± 10.7
Fat mass (%)	33.3 ± 12.9
Bone mineral content (kg)	1.72 ± 0.2
Appendicular skeletal muscle mass (kg)	15.9 ± 1.9
ASMMI (kg/m²)	6.6 ± 0.9
Functional tests	
Handgrip strength, kg, mean ± SD	12.0 ± 13.3
Chair stand test (sec)	45.0 [c]
Gait speed, m/s, mean ± SD	0.9 ± 0.3
Gastrocnemius circumference, cm, mean ± SD	35.5 ± 3.3
Severity of sarcopenia*, n (%)	
Probable	5 (83.3)
Confirmed	0 (0.0)
Severe	0 (0.0)

IQR - Interquartile Range. SD - Standard deviation. DXA - Dual-energy X-ray absorptiometry. ASMMI - Appendicular skeletal muscle mass index. +Sarcopenia classified per EWGSOP2 (2018): probable = reduced muscle strength (handgrip <16 kg for women or chair stand >15s); confirmed = + low muscle mass (ASMMI <5.5 kg/m²); severe = + impaired physical performance (walk test <0.8 m/s).
[c] Available in one patient only.
[+] One missing value for DXA-derived variables.

based on gait speed test. Phenotypic classification showed a predominant functional phenotype (low strength with normal ASMMI). No structural or combined phenotypes were detected. A strong positive correlation was found between SARC-F and fat mass (ρ = 0.91, p = 0.034), suggesting a possible link with sarcopenic obesity. Functional sarcopenia occurred primarily in women under 65 years (83.3% vs. 63.6%, p = 1.000), and was numerically but not significantly associated with shorter height (154.4 ± 4.8 cm vs. 160.4 ± 7.6 cm, p = 0.222) and more frequent arthralgia (100% vs. 63.6%, p = 0.237). Anti-Scl-70 antibodies were significantly more common in SARC-F ≥4 patients (50.0% vs. 0%, p=0.029).

Conclusion: These preliminary findings support a functional sarcopenia phenotype in SSc, with a prevalence of 29.4%, particularly among women with short stature, in whom ASMMI may fail to reflect significant muscle impairment. A trend toward younger age (<65 years) and arthralgia may be suggestive of mechanisms beyond aging. Moreover, higher anti-Scl-70 may indicate distinct phenotypic trajectories.

033 - EFFICACY AND SAFETY OF DENOSUMAB IN PATIENTS WITH CHRONIC KIDNEY DISEASE: A RETROSPECTIVE OBSERVATIONAL STUDY

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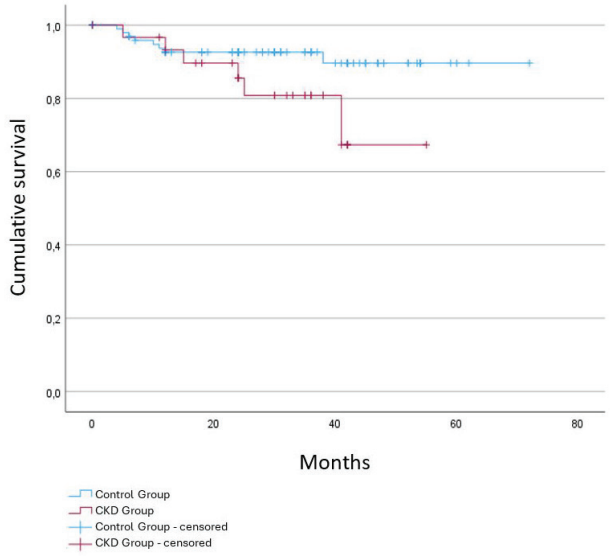
Background: Osteoporosis (OP) is a systemic disease associated with increased fracture risk. Chronic kidney disease (CKD) not only increases the prevalence of OP, but it is also associated with disturbances in bone and mineral metabolism, amplifying the fracture risk. Diagnosing and managing OP in CKD patients remains a clinical challenge, and many of these individuals are undertreated. Denosumab (DEN) is an antiresorptive agent that can be used even in patients with severely reduced glomerular filtration rate (GFR), although safety concerns, particularly hypocalcemia, remain.
Objectives: To evaluate the efficacy and safety of DEN in CKD patients with OP.
Methods: We conducted a longitudinal, retrospective study including patients with OP treated with DEN until March 31, 2023. Patients were stratified by estimated GFR (CKD-EPI 2021): CKD group (<60ml/min/1.73m²) and control group (≥60ml/min/1.73m²). Baseline sociodemographic, clinical, laboratory, and densitometric data were collected. Changes in bone density scan (DXA) T-scores (TS), adverse events, and fracture incidence were evaluated. Group comparisons were performed using appropriate statistical tests, and p<.05 was considered statistically significant. Kaplan–Meier analysis was used to assess time to fracture.
Results: We included 144 patients (112 controls, 32 with CKD). Baseline characteristics of both groups are summarized in Table 1. The CKD group was older (p=.003), had higher body mass index (BMI) (p=.033), and had an increased prevalence of hypertension (p<.001) and dyslipidemia (p=.040). More CKD patients were treatment-naïve (p<.001) and had used proton pump inhibitors (p=.016), loop diuretics (p<.001), and warfarin (p=.004). Baseline parathormone (PTH) levels were significantly higher in the CKD group (p<.001). Lumbar spine TS were also higher in the CKD group (p=.002). Among 53 patients with follow-up DXA (45 controls, 8 with CKD), there were no

033 – TABLE I. Comparison of baseline characteristics between the control and de CKD groups

	Control group, N=112	CKD Group, N=31	p
Age (years), m ± SD	70.7 ± 9.53	76.4 ± 8.47	**.003**
Female sex, n (%)	99 (88.4)	25 (78.1)	.139
BMI (Kg/m²), m ± SD	25.1 ± 4.01	26.9 ± 4.43	**.033**
Comorbidities			
Hypertension, n (%)	55 (49.1)	27 (84.4)	**<.001**
Dyslipidemia, n (%)	47 (42.0)	20 (62.5)	**.040**
Diabetes, n (%)	16 (14.3)	8 (25.0)	.151
Rheumatic Disease[$], n (%)	65 (58.0)	22 (68.8)	.274
Current or past medications			
Glucocorticoids*, n (%)	61 (54.5)	21 (65.6)	.261
Proton-pump inhibitors, n (%)	61 (54.5)	25 (78.1)	**.016**
Loop diuretic, n (%)	11 (9.8)	11 (34.4)	**<.001**
Warfarin, n (%)	3 (2.7)	6 (18.8)	**.004**
Benzodiazepines, n (%)	40 (35.7)	14 (43.8)	.408
Opioids, n (%)	10 (8.9)	4 (12.5)	.513
Antiepileptic drugs, n (%)	7 (6.3)	0	.349
Laboratory workup			
Total Calcium (mg/dl), m ± SD	9.8 ± .49	9.9 ± .52	.250
Phosphorus (mg/dl), m ± SD	3.6 ± .57	3.7 ± .54	.603
Alkaline Phosphatase (U/L), m ± SD	77.8 ± 25.97	93.1 ± 42.96	.159
Vitamin D (ng/ml), m ± SD	31.1 ± 15.35	36.9 ± 18.57	.141
PTH (pg/ml), m ± SD	70 ± 58.9	100 ± 58.6	**<.001**
Albumin (g/dl), m ± SD	4.2 ± .33	4.2 ± .44	.750
Calcium supplementation (mg/day), m ± SD	1000 ± 500	1000 ± 1313	.312
Vitamin D supplementation (UI/day), m ± SD	2145 ± 1820	2145 ± 1020	.572
Previous osteoporosis treatment			
Treatment-naïve, n (%)	12 (10.7)	14 (43.8)	**<.001**
Oral bisphosphonate, n (%)	91 (81.3)	17 (53.1)	**.001**
IV bisphosphonate, n (%)	29 (25.9)	3 (9.4)	**.047**
Others[#], n (%)	13 (11.6)	1 (3.1)	.153
DXA T-score			
Femoral neck, m ± SD	-2.3 ± .95	-2.2 ± .89	.474
Total Hip, m ± SD	-1.9 ± .98	-1.7 ± .95	.470
Lumbar (L1 to L4). m ± SD	-2.5 ± 1.37	-1.6 ± 1.41	**.002**
Fractures history			
Distal radius, n (%)	12 (10.7)	3 (9.4)	.827
Hip, n (%)	7 (6.3)	2 (6.3)	.991
Vertebral, n (%)	35 (38.1)	14 (43.8)	.188
Other, n (%)	27 (24.1)	6 (7.3)	.525

[$]Rheumatic diseases included inflammatory and microcrystalline arthropathies, connective tissue diseases, and vasculitis. *A positive history was considered if the patient had been exposed to oral glucocorticoids for > 3 months to doses > 5 mg of prednisolone per day. [#] Include teriparatide, calcitonin, and strontium ranelate. BMI – body mass index; DXA - dual-energy X-ray absorptiometry; I.V. – intravenous; m – mean; PTH – Parathormone; SD – standard deviation.

significant differences between groups in the variation of TS at the femoral neck (ΔTS=.12±.322 in control group; ΔTS=.26±256 in CKD group; p=.254), total hip (ΔTS=.18±.281 in control group; ΔTS=.12±.325 in CKD group; p=.747), or lumbar spine (ΔTS=.54±.714 in control group; ΔTS=.79±.790 in CKD group; p=.328). During the follow-up, 15 patients experienced a new fracture (9 controls and 6 with CKD; p=.096). The time from the first DEN injection to fracture did not differ significantly between groups. Kaplan–Meier analysis showed a non-significant trend toward higher fracture incidence in CKD (log-rank p=.084). Five patients discontinued DEN due to adverse events: 3 controls (2 jaw osteonecrosis and 1 hypersensitivity reaction), and 2 in the CKD group (1 symptomatic hypocalcemia and 1 suppressed PTH).



033 – Figure 1. Kaplan-Meier survival analysis comparing the time to first fracture between groups.

Conclusions: DEN showed similar efficacy and safety in patients with and without CKD. Despite being older and having more comorbidities, CKD patients had comparable bone mineral density gains and adverse event rates. The higher baseline lumbar spine TS in the CKD group may reflect spinal osteoarthritis and higher BMI. More CKD patients were treatment-naïve and were on medications known to impair bone health. One case of hypocalcemia and one of suppressed PTH occurred in CKD, highlighting the need for biochemical monitoring. Despite the study limitations (retrospective design, small sample size), our study adds valuable real-world data regarding the use of DEN in patients with CKD, a group frequently excluded from randomized controlled trials.

039 - DENOSUMAB FOR PAGET'S DISEASE: A SYSTEMATIC REVIEW ON A RENAL-FRIENDLY ALTERNATIVE

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Background: Paget's disease of the bone (PDB) is a chronic metabolic bone disease characterised by focal areas of anomalous osseous remodeling. Bisphosphonates (BP) are the first-line treatment for PDB. However, they are contraindicated if glomerular filtration rate (GFR) <30-35 mL/min). Conversely, denosumab (Dmab) can be safely used in in chronic kidney disease (CKD) without dose adjustment. Thus far, evidence for denosumab in PDB is limited.

Aim: To deepen the knowledge regarding Dmab effectiveness and safety in PDB.

Methods: A systematic literature review was conducted using PubMed, SCOPUS and Web of Science databases until 30/11/2024. PICO criteria were Population - adult-onset PDB; Intervention - Dmab; Comparator (if any) – placebo or BP; Outcomes - reduction in alkaline phosphatase (ALP) levels and in pain, and treatment-related side effects. All types of studies were included.

Results: After screening 123 articles, 12 were included. A total of 13 patients were found to have PDB and received Dmab. The patients' median age was 76 [IQR 15] years and 7 (53.8%) were male; 3 (23.1%) had associated Giant Cell Tumor (GCT-PDB), and 6 (46.2%) had CKD. At presentation, 12 (92.3%) patients were symptomatic, and 9 (69.2%) had polyostotic PDB. Eleven (91.7%) cases reported high ALP levels at baseline. The median follow-up period was 15 [IQR 6] months. The most frequent therapeutic regimen was subcutaneous administration of 60 mg every 6 months; however, in GCT-PDB cases, initial loading doses of 120 mg at days 1, 8 and 15 were administered, followed by 120 mg every 4 weeks.

In 5 (38.5%) cases, the choice of Dmab was related to renal impairment (Chícharo et al., 2024 [Abstract]; Eatz et al., 2022; Kostine et al., 2017; Kuthiah & Er, 2018; Schwarz et al., 2012). In two (15.4%) other cases, Dmab was administered due to osteopenia (Chícharo et al., 2024 [Abstract]; Kamalumpundi et al., 2023). Two (15.4%) other patients (Farias & Zanchetta, 2014; Reid et al., 2016) received Dmab after poor response and poor tolerance to BP therapy. In a different case, a patient was treated with Dmab without clear elucidation for this choice (Pal & Bhadada, 2022). Regarding the cases of GCT-PDB, Dmab was administered after unsuccessful therapy with BP in 2 (15.4%) patients (Cosso et al., 2010; Tanaka et al., 2017). In the other case, BP led to symptom remission of PDB for 3 years prior to GCT-PDB onset (Verma et al., 2016).

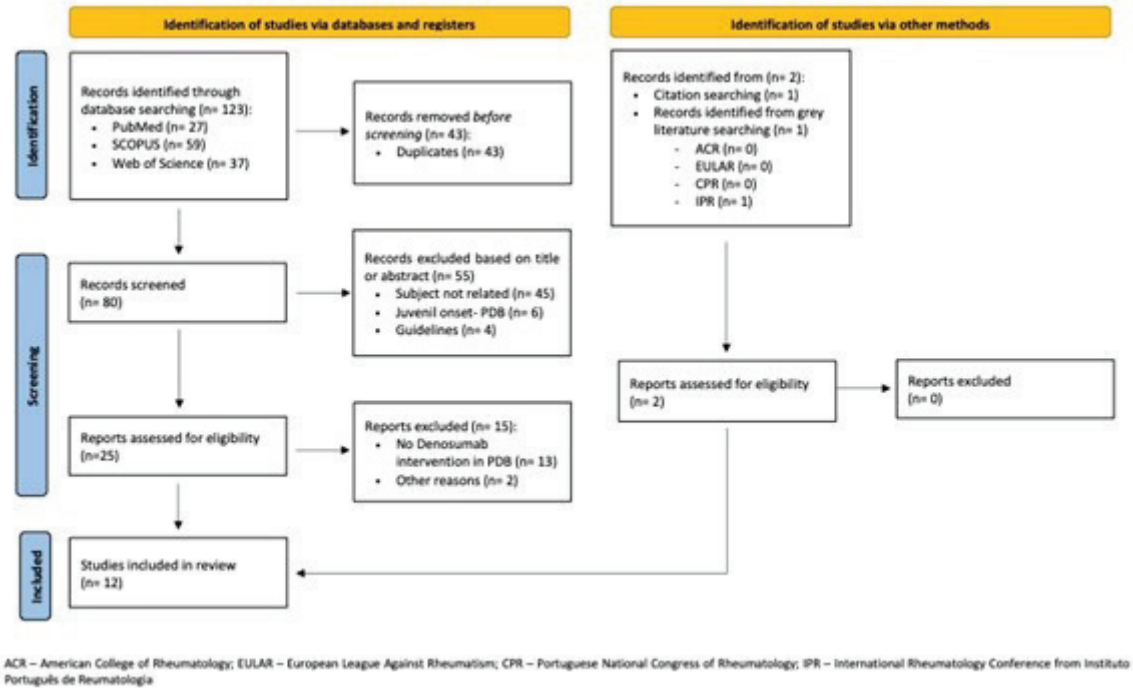
A reduction in ALP levels was achieved in all 10 cases that reported on this outcome, with 7 (70.0%) patients achieving full normalisation. When specifically analysing the cases of isolated PDB (n=10), the mean ALP reduction was 60.7% (±22.7) after a median of 3 (IQR 4) months. In the 3 patients with GCT-PDB, a reduction in tumor size was described in all of them after a median of 2.5 (IQR 2.8) months of Dmab ad-

039 – TABLE I. Baseline characteristics of included studies.

Reference	Study design	Age at PDB diagnosis (Y)	Sex	CKD	Clinical presentation	Form of PDB	GCT-PDB	Intervention details	Outcomes evaluated	Efficacy in: 1- reduction of bone turnover markers and 2- symptoms improvement (3- tumour size in GCT-PDB)	Adverse events
(Chicharo et al., 2024 [Abstract])	Case series	83	M	**Yes** (GFR 22 ml/min/m²)	Pain in the left shoulder and hips	**Polyostotic PDB** (left scapula, right iliac bone, costal arches)	No	Denosumab 60mg, SC, every 6 months (3 administrations reported)	- Total ALP - Bone pain - Adverse effects	**Normalization of ALP** **Bone pain reduction**	No adverse events reported
		66	F	**Yes** (GFR 29 ml/min/m²)	Asymptomatic	**Monostotic PDB** (pelvis)	No	Denosumab 60mg, SC, every 6 months (3 administrations reported)	Total ALP Adverse effects	**Normalization of ALP**	No adverse events reported
(Kamalumpundi et al., 2023)	Case report	75	F	Renal function N/A	Headache	**Monostotic PDB** (skull)	No	Denosumab 60mg, SC (1 administration reported for **osteopenia)**	- Total ALP - Bone-specific ALP - Bone pain - Adverse effects	**Normalization of ALP** **Reduction of bone-specific ALP** **Asymptomatic**	No adverse events reported
(Eatz et al., 2022)	Case report	91	M	**Yes** (GFR 30 ml/min)	Lower back and bilateral hip pain	**Polyostotic PDB** (skull, left humerus, costal arches, thoracic and lumbar spine, pelvis and bilateral hips)	No	Denosumab 60mg, SC (1 administration reported)	- Total ALP Bone pain Adverse effects	**Reduction (but not normalization) of ALP** **No improvement of pain**	**Asymptomatic hypocalcaemia** that led to 2 distinct hospitalizations (nadir 6.5 mg/dL)
(Pal & Bhadada, 2022)	Letter to the editor – case report	81	F	Renal function N/A	Generalized bony pain	**Polyostotic PDB** (Skull, humerus and femur)	No	Denosumab 60mg, SC (6 administrations reported)	- Bone pain - Adverse effects	**Bone pain reduction** (recurrence of symptoms after 5 months)	**Asymptomatic hypocalcaemia** after all six administrations of denosumab described (nadir 7.0 mg/dL)
(Kuthiah & Er, 2018)	Case report	63	F	**Yes** (GFR 23mL/min)	Lower limbs pain	**Polyostotic PDB** (left iliac and pubic bones, left tibia)	No	Denosumab, 60mg, SC, every 6 months (number of administrations not specified)	Total ALP Bone pain Adverse effects	**Normalization of total ALP** **Asymptomatic**	No adverse events reported
(Kostine et al., 2017)	Case report	79	M	**Yes** (GFR 12ml/min/1.73m²)	Back and pelvic pain	**Polyostotic PDB** (Skull, thoracic and lumbar spine, sacrum, left patella and right calcaneus)	No	Denosumab 60mg, SC (1 administration reported) Calcium + vitamin D	Total ALP Bone-specific ALP Bone pain Adverse effects	**Normalization of total and bone-specific ALP** **Bone pain reduction**	**Severe symptomatic hypocalcaemia** hospitalization in an ICU (nadir of ionized calcium 0.54 mmol/L)
(Reid et al., 2016)	Case report	75	F	Renal function N/A	Headache	**Monostotic PDB** (skull)	No	Denosumab 60mg, SC (2 administrations reported, one year apart)	- Total ALP - Bone pain	**Normalization of total ALP** **Bone pain reduction**	No adverse events reported
(Farias & Zanchetta, 2014)	Case report	85	F	Renal function N/A	Right hip pain	**Polyostotic PDB** (right hip, right iliac bone, spine)	No	Denosumab 60mg, SC, every 6 months (2 administrations reported) Calcium + vitamin D	- Total ALP - Bone-specific ALP - Bone pain - Adverse effects	**Reduction of total and bone-specific ALP** **Bone pain reduction**	No adverse events reported
(Schwarz et al., 2012)	Case report	86	M	**Yes (GFR 11 mL/min)**	Low back pain	**Monostotic PDB** (pelvis)	No	Denosumab 60mg, SC (5 administrations reported: at presentation, 6, 9, 12 and 15 months)	- Bone pain - Total ALP - Bone-specific ALP - CTX-1 - CTPI	**Reduction of all BMT with normalization of total ALP** **Bone pain reduction**	No adverse events reported
(Cosso et al., 2010; Nuzzo et al., 2009)	Case report	35	M	Renal function N/A	Back pain, extended to the left iliac region.	**Polyostotic PDB** (skull, spine, pelvis and both femurs)	**Yes** (at 68 years-old, GCT diagnosis confirmed by biopsy)	Denosumab 120mg, SC, every 4 weeks (loading doses at day 8 and 15) (14 administrations reported)	- Total ALP - Health Assessment Questionnaire (pain) - Tumour size	**Reduction (not normalization) of total ALP** **Bone pain reduction** **Reduction in tumour size**	No adverse effects reported

039 – TABLE I. Continuation

Reference	Study design	Age at PDB diagnosis (Y)	Sex	CKD	Clinical presentation	Form of PDB	GCT-PDB	Intervention details	Outcomes evaluated	Efficacy in: 1- reduction of bone turnover markers and 2- symptoms improvement (3- tumour size in GCT-PDB)	Adverse events
(Verma et al., 2016)	Case report	40	M	Renal function N/A	Low back pain	**Polyostotic PDB** (skull, sternum, dorsal and lumbar spine, pelvis, coastal arches, femur, tibia)	**Yes** (at 43 years-old, GCT diagnosis confirmed by biopsy; local recurrence after two years)	For **PDB**: Pamidronate 60mg, EV, every 3 weeks + calcium + vitamin D For **GCT**: denosumab 120mg, SC, every 4 weeks (loading doses at day 1, 8 and 15) (6 administrations reported)	- Tumour size - Pain	**Bone pain reduction** **Reduction in tumour size** (ALP was elevated at diagnosis; there is no information regarding ALP levels after denosumab)	No adverse effects reported
(Tanaka et al., 2017)	Case report	45	M	Renal function N/A	Right thigh and knee pain, spine pain, bilateral hearing loss	**Polyostotic PBD** (lumbar spine, sacrum, left posterior ilium)	**Yes** (at 60 years-old, GCT diagnosis confirmed by biopsy)	Denosumab 120mg, SC, every 4 weeks (loading doses at day 1, 8 and 15) (13 administrations reported)	- Tumour size - Pain	**Bone pain reduction** **Reduction in tumour size**	No adverse effects reported



ACR – American College of Rheumatology; EULAR – European League Against Rheumatism; CPR – Portuguese National Congress of Rheumatology; IPR – International Rheumatology Conference from Instituto Português de Reumatologia

033 – Figure 1. PRISMA flowchart: outline of the study selection process according to inclusion and exclusion criteria.

ministration. Pain evaluation revealed that, among the 12 patients who had symptomatic lesions, 11 (91.7%) experienced pain improvement.

Regarding adverse effects, hypocalcemia was reported in 3 (23.1%) patients; one presented a severe symptomatic hypocalcemia (Ca2+ 1.1 mmol/L) 4 weeks after Dmab administration, requiring admission to the ICU (Kostine et al., 2017). Of note, 2 of these patients had GFR of 30 and 12 mL/min (Eatz et al., 2022; Kostine et al., 2017).

Conclusion: Dmab demonstrated a favorable safety and effectiveness profile for treating PDB, including in cases with CKD or difficult-to-treat GCT-PDB. Further research is warranted to establish the long-term effec-

tiveness and safety profile of denosumab in treating PDB.

042 - PULMONARY HYPERTENSION IN CONNECTIVE TISSUE DISEASE: INSIGHTS FROM THE REUMA.PT NATIONAL REGISTRY

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Background: Pulmonary hypertension (PH) is a life-threatening complication of connective tissue disease (CTD). Our aim was to characterise the clinical features, PH classification, treatment patterns and factors associated with death in Portuguese PH-CTD patients according to the Reuma.pt database.

Methods: Multicentre retrospective study of patients registered in Reuma.pt, meeting classification criteria for systemic sclerosis (SSc), systemic lupus erythematosus, rheumatoid arthritis, idiopathic inflammatory myositis, Sjögren's disease or mixed connective tissue disease diagnosed with PH by right heart catheterisation1. Collected variables were sex, date of birth, CTD and PH diagnosis, date of death, mean pulmonary arterial pressure (mPAP), pulmonary vascular resistance (PVR), pulmonary artery wedge pressure (PAWP), hemodynamic1 and clinical (WHO) classification of PH, chest CT and pulmonary function tests (PFT) (% of predicted diffusing capacity for carbon monoxide [DLCO] and forced vital capacity [FVC]) at CTD and PH diagnosis, and current treatment. Data was extracted in May 2025. Continuous variables were reported as mean±SD or median (IQR) based on distribution, categorical variables as %. Group comparisons were performed using the t-test or Mann-Whitney U test (continuous data), and χ^2 or Fisher's exact test (categorical data).

Results: 73 patients from 16 centres were included (90.4% ♀; median age 70.0; median age at PH diagnosis 64.0). Most (78.1%) had SSc (77.2% limited cutaneous, 21.1% diffuse cutaneous, 1.8% sine scleroderma) (Table 1, Fig.1).

Median follow-up was 10.3 years from CTD diagnosis and 3.6 years from PH diagnosis. PH diagnosis was simultaneous to CTD diagnosis (±90 days) in 12.3% and preceded it (>90 days) in 6.2%.

PFT and CT data at CTD diagnosis were excluded due to high missingness. At PH diagnosis, 73% had DLCO<60%, 62% had both DLCO<60% and FVC>40% and 68% had FVC/DLCO ratio >1.5. 54.3% had pulmonary fibrosis reported on CT scan and 65.8% were diagnosed with interstitial lung disease by their physician.

Of patients with hemodynamic classification available (n=59), the majority (62.7%) had pre-capillary PH; regarding clinical classification (n=46), most patients (54.3%) had pulmonary arterial hypertension (PAH) (Table 1, Fig. 1).

32% of the PAH patients were on calcium channel blockers (CCB), 76% phosphodiesterase 5 inhibitors (PDE5i), 68% endothelin receptor antagonists (ERA), 20% prostacyclin analogues (PCA), 12% prostacyclin receptor agonists (PRA). Combination therapy included ERA+PDE5i (40%), PCA+PDE5 (8%), ERA+PDE5i+PCA (12%) and ERA+PDE5i+PRA (12%).

SSc patients were older than non-SSc patients at CTD diagnosis (mean 57.4±15.4 vs 42.8±15.4 yrs, p<0.001) and at PH diagnosis (median 66.5 [14.0] vs 53.5 [27.0] yrs, p=0.002). They were more likely to be taking CCB (40.4% vs 6.3%, p=0.01), probably due to the high prevalence of Raynaud's (98%). No other differences were noted.

17 patients (23.3%) were deceased at the time of data extraction, a mean of 5.4 years after PH diagnosis. Compared with surviving patients, they were older at

042 – TABLE I. Demographic and clinical characteristics (n=73)

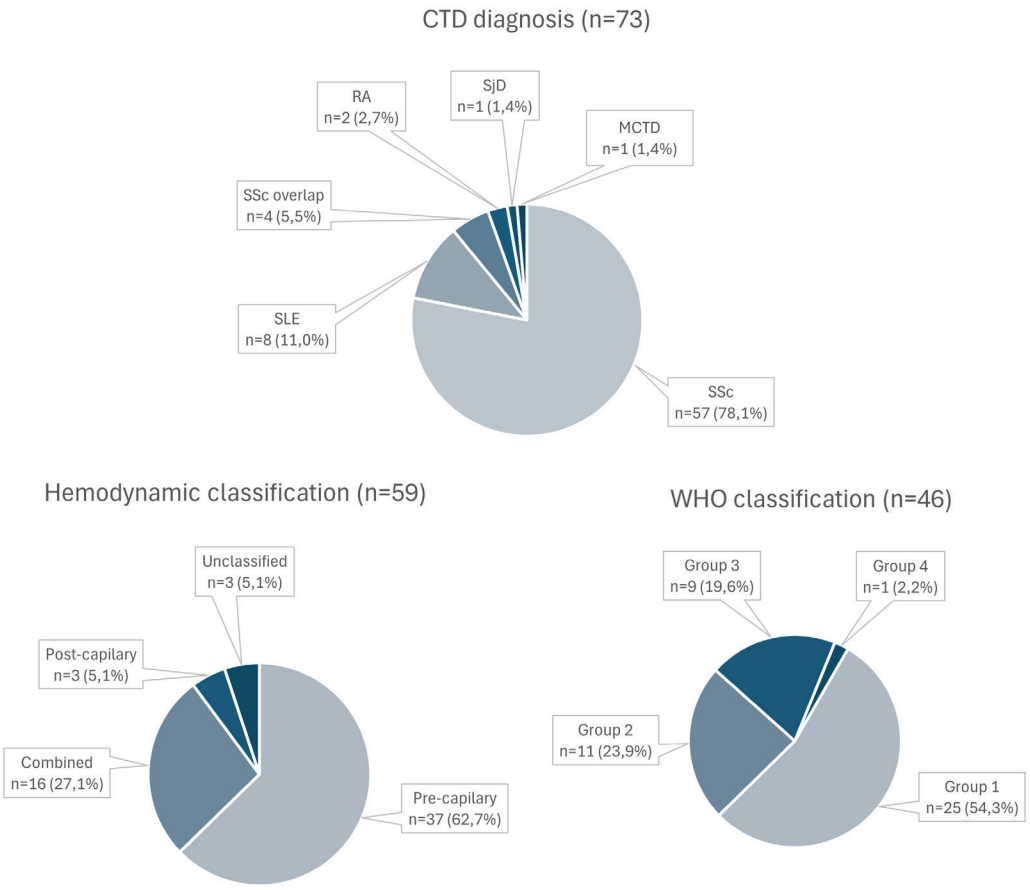
		Missingness – n (%)
Current age (years) – median (IQR)	70.0 (14.0)	0
Age at CTD diagnosis (years) – mean ± SD	54.4 ± 14.3	4 (5.5)
Age at PH diagnosis (years) – median (IQR)	64.0 (17.0)	5 (6.8)
Female sex – n (%)	66 (90.4)	0
Connective tissue disease		0
Systemic sclerosis – n (%)	57 (78.1)	
Limited cutaneous	44 (77.2)	
Diffuse cutaneous	12 (21.1)	
Sine scleroderma	1 (1.8)	
Systemic lupus erythematosus	8 (11.0)	
Systemic sclerosis overlap syndrome	4 (5.5)	
Systemic lupus erythematosus	1 (25.0)	
Myositis	1 (25.0)	
Sjögren's	1 (25.0)	
Rheumatoid arthritis	1 (25.0)	
Rheumatoid arthritis	2 (2.7)	
Sjögren's disease	1 (1.4)	
Mixed connective tissue disease	1 (1.4)	
Follow-up from CTD diagnosis (years) – median (IQR)	10.3 (10.5)	4 (5.5)
Follow-up from PH diagnosis (years) – median (IQR)	3.6 (5.8)	5 (6.8)
Time from CTD to PH diagnosis (years) – median (IQR)	4.8 (10.1)	8 (11.0)
Death – n (%)	17 (23.3)	0
Age at death (years) – mean ± SD	70.7 ± 9.7	0
Time from PH diagnosis to death (years) – mean ± SD	5.4 ± 5.0	3 (17.6)
Right heart catheterization		
Mean pulmonary arterial pressure (mmHg) – median (IQR)	40.0 (22.0)	0
Pulmonary vascular resistance (Wood Units) – median (IQR)	5.6 (5.0)	9 (12.3)
Pulmonary Artery Wedge Pressure (mmHg) – median (IQR)	13.0 (9.0)	11 (15.1)
Hemodynamic classification of PH		14 (19.2)
Pre-capilary – n (%)	37 (62.7)	
Post-capilary – n (%)	3 (5.1)	
Combined post- and pre-capillary – n (%)	16 (27.1)	
Unclassified – n (%)	3 (5.1)	
Clinical classification of PH (WHO)		27 (37.0)
Group 1 (pulmonary arterial hypertension) – n (%)	25 (54.3)	
Group 2 (associated with left heart disease) – n (%)	11 (23.9)	
Group 3 (associated with lung diseases and/or hypoxia) – n (%)	9 (19.6)	
Group 4 (chronic thromboembolic PH) – n (%)	1 (2.2)	
Group 5 (unclear and/or multifactorial mechanisms) – n (%)	0 (0)	
Pulmonary function tests (CTD diagnosis)		
DLCO (% predicted) – mean ± SD	61.8 ± 27.2	63 (86.3)
FVC (% predicted) – mean ± SD	88.3 ± 12.8	65 (89.0)

Continues on the next page

042 – TABLE I. Continuation

		Missingness – n (%)
Pulmonary function tests (PH diagnosis)		
DLCO (% predicted) – mean ± SD	46.5 ± 24.7	36 (49.3)
DLCO <60% - n (%)	27 (73.0)	36 (49.3)
FVC (% predicted) – mean ± SD	78.7 ± 24.4	38 (52.1)
FVC >40% - n (%)	32 (91.4)	38 (52.1)
DLCO < 60% and FVC > 40% - n (%)	21 (61.8)	38 (52.1)
FVC%/DLCO% ratio – mean ± SD	1.9 ± 0.75	38 (52.1)
FVC%/DLCO% ratio >1.5 – n (%)	23 (67.6)	38 (52.1)
Fibrosis on chest CT (CTD diagnosis) – n (%)	5 (71.4)	66 (90.4)
Fibrosis on chest CT (PH diagnosis) – n (%)	19 (54.3)	38 (52.1)

CT - computed tomography; CTD – connective tissue disease ; DLCO – diffusing capacity for carbon monoxide; FVC – forced vital capacity; PH – pulmonary hypertension; SD – standard deviation; WHO - World Health Organization



042 – Figure 1. Distribution of patients by CTD, hemodynamic classification and WHO classification of pulmonary hypertension

CTD diagnosis (60.3±12.9 vs 52.4±14.3 yrs, p=0.047). No other differences were noted.

Conclusion: As expected, most patients had limited cutaneous SSc. At the time of PH diagnosis, PFTs were suggestive of PH in most. Non-SSc patients were younger at PH onset. Older age at CTD diagnosis was associated with higher mortality. Although pre-capillary PH was the most common subtype, the diversity of

hemodynamic and clinical classifications highlights the diagnostic challenges of PH in CTD.

043 - HOW PREVALENT ARE ANTI-ELASTASE ANTIBODIES IN GRANULOMATOSIS WITH POLYANGIITIS?

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Background: Anti-elastase antibodies have been sporadically reported in patients with granulomatosis with polyangiitis (GPA), but their prevalence and diagnostic relevance remain unclear. Clarifying their frequency could help determine their potential role as disease biomarkers.
Objectives: To assess the prevalence of anti-elastase antibodies in GPA patients through a narrative review of the literature.
Methods: We conducted a narrative review using the MEDLINE/PubMed database up to December 2024. The search query included: ("Wegener's granulomatosis" OR "Granulomatosis with polyangiitis") AND "elastase". After title and abstract screening, we selected original studies reporting the presence or prevalence of anti-elastase antibodies in GPA cohorts using defined serological methods. Case reports, reviews, non-English studies, animal or in vitro studies, studies lacking diagnostic clarity, and those with overlapping cohorts were excluded. Six single-centre retrospective studies met inclusion criteria.
Results: A total of 98 records were retrieved, of which six single-centre retrospective studies were included. The included studies (Table 1) evaluated a total of 255 patients with GPA, with sample sizes ranging from 12 to 108. Four studies were conducted in Europe, one in North America, and one in Australia. GPA diagnosis was based on established classification systems, including the International Consensus Conference on Nomenclature of Systemic Vasculitis, the American College of Rheumatology (ACR) criteria, or the Chapel Hill Consensus Conference definitions. All studies employed ELISA to detect anti-elastase antibodies. Across the six studies, 13 GPA patients were reported as positive for anti-elastase antibodies, yielding an overall prevalence of 5.1%. Reported prevalence ranged from 0.0% to 16.7%, with the two largest studies reporting 0.0% and 7.4%.
Discussion: This review suggests that anti-elastase antibodies are infrequent in GPA, with a pooled prevalence of 5.1%. The wide variability between studies, combined with the low prevalence, indicates limited potential for these antibodies as diagnostic biomarkers. Importantly, all included studies had methodological limitations: small sample sizes, single-centre retrospective designs, and heterogeneous diagnostic criteria. Moreover, none were specifically designed to evaluate diagnostic performance. Consequently, data on sensitivity, specificity, or predictive value are lacking, precluding definitive **Conclusion**s regarding their clinical utility.
Conclusion: Current evidence does not support the use of anti-elastase antibodies as reliable diagnostic markers in GPA. Future prospective, multicentre studies with standardized serological methods and adequate comparator groups are needed to determine their diagnostic performance and potential relevance in AAVs.

044 - PREDICTORS OF BACTEREMIA IN SEPTIC ARTHRITIS: A SINGLE CENTER STUDY

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043 – TABLE I. Studies regarding the prevalence of anti-elastase positivity in GPA. GPA was diagnosed according to the International Consensus Conference on Nomenclature of Systemic Vasculitis, the American College of Rheumatology criteria, or the Chapel Hill Consensus Conference.

Study	GPA sample size N	Number of anti-elastase cases in GPA patients N (%)	Study design	Methods for testing anti-elastase
S. Apenberg et al. (8)	108	8 (7.4%)	Single Center study retrospective	ELISA
J. A. Savige et al. (24)	22	1 (4.5%)	Single center study retrospective	ELISA
M. V. Talor et al. (25)	32	1 (3.1%)	Single center study Restrospective	ELISA
Olaf Wiesner et al. (10)	64	0 (0.0%)	Single center study Retrospective	ELISA
A. C. Muller Kobold et al. (26)	17	1 (5.9%)	Single Center study retrospective	ELISA
S. N. Wong et al. (27)	12	2 (16.7%)	Single center study Restrospective	ELISA

Introduction: Septic arthritis is a medical emergency that can lead to rapid joint destruction and systemic complications. One of its most severe consequences is concomitant bacteremia, which increases the risk of sepsis, distant metastatic infections, and poor clinical outcomes. While bacteremia is a frequent complication in septic arthritis, its predictors remain poorly defined. Identifying clinical and microbiological factors associated with bacteremia could support early risk stratification and guide therapeutic decisions.
Objectives: To identify clinical, laboratory, and microbiological predictors of concomitant bacteremia in patients with culture-confirmed septic arthritis.
Methods: We conducted a retrospective, cross-sectional study at a single tertiary center, including adult patients diagnosed with septic arthritis between 2014 and 2023. Inclusion criteria were confirmed bacterial growth in synovial fluid culture and blood cultures collected at diagnosis. Data included demographics, comorbidities, joint involved, blood tests, and synovial fluid analysis. Bacteremia was defined as a positive blood culture isolating the same pathogen as in the joint. Patients with and without bacteremia were compared using Chi-squared or Fisher's exact test for categorical variables and Mann-Whitney U test for continuous variables. Variables significantly associated in univariate analysis, or deemed clinically relevant, were entered into multivariable logistic regression. Odds ratios (ORs) with 95% confidence intervals (CIs) were reported. A p-value <0.05 was considered statistically significant.
Results: A total of 67 patients with culture-confirmed septic arthritis and available blood cultures were included, of whom 25 (37.3%) had concomitant bacteremia (Table 1). No significant differences were observed in sex, diabetes, immunosuppression, inflammatory rheumatic disease, or prosthetic joint involvement. Knee involvement was significantly less frequent in bacteremic patients (54.5% vs 82.5%, p = 0.020). Synovial leukocyte count was lower (25,201.5 vs 80,556 cells/µL, p = 0.029), and platelet count was significantly reduced (192.0 vs 261.5 $\times 10^9$/L, p = 0.008). No significant differences were found for CRP, ESR, procalcitonin, or total blood leukocyte and neutrophil counts. S. aureus was more frequent among bacteremic patients (80.0% vs 52.4%, p = 0.020). In univariate analysis, S. aureus isolation (OR = 3.64, p = 0.028), knee involvement (OR = 0.26, p = 0.022), lower platelet

044 – TABLE 1. Baseline characteristics of patients with septic arthritis, stratified by presence of bacteremia. Predictors of bacteremia in septic arthritis: a single center study

	Whole cohort N = 67 (100%)	No bacteremia N = 42 (62.7%)	Bacteremia N = 25 (37.3%)	p-value
Age, mean SP	69.1 13.6	66.8 14.3	73.0 11.7	0.071
Male, n (%)	42 (62.7)	25 (59.5)	17 (68.0)	0.486
Diabetes Mellitus, n (%)	18 (31.6)	12 (30.8)	6 (33.3)	0.847
Imunossupression, n (%)	13 (19.4)	10 (25.6)	3 (16.7)	0.520
Inflammatory rheumatic disease, n (%)	12 (21.8)	7 (18.9)	5 (27.8)	0.499
Native Joint, n (%)	43 (67.2)	26 (65.0)	17 (70.8)	0.629
Knee involvement, n (%)	45 (72.6)	33 (82.5)	12 (54.5)	0.020
Synovial leucocytes (cells/µL), median (IQR)	60899.0 (64291.0)	80556.0 (47138.0)	25201.5 (46622.5)	0.029
Synovial PMNs (%), median (IQR)	94.3 (7.5)	96.0 (3.6)	90.9 (11.3)	0.058
Hemoglobin (g/dL), median (IQR)	9.9 (3.8)	9.8 (3.3)	10.1 (4.0)	0.500
Leucocytes (x10^9/L), median (IQR)	9.6 (5.9)	10.0 (4.5)	8.8 (8.0)	0.398
Neutrophils (x10^9/L), median (IQR)	7.9 (5.6)	8.7 (4.7)	6.7 (8.7)	0.398
Platelets (x10^9/L), median (IQR)	245.0 (180.0)	261.5 (183.8)	192.0 (138.5)	0.008
CRP (mg/dL), median (IQR)	18.2 (20.1)	15.6 (19.7)	23.3 (16.5)	0.150
ESR (mm/h)	57.0 (34.5)	59.0 (44.8)	57.0 (48.0)	0.790
PCT (ng/dL)	0.25 (0.95)	0.26 (1.0)	0.22 (0.7)	0.443
S. aureus, n (%)	42 (62.7)	22 (52.4)	20 (80.0)	0.020
MRSA, n (%)	15 (35.7)	6 (27.3)	9 (45.0)	0.230
Crystals, n (%)	11 (29.7)	6 (25.0)	5 (38.5)	0.465

Data are presented as mean ± standard deviation, median (interquartile range), or n (%), as appropriate. Comparisons between groups were made using Mann–Whitney U test for continuous variables and Chi-squared or Fisher's exact test for categorical variables. CRP: C-reactive protein; ESR: erythrocyte sedimentation rate; IQR: interquartile range; MRSA: Methicillin-Resistant Staphylococcus aureus; PCT: procalcitonin.

count (OR = 0.994 per 10^9/L, p = 0.013), and higher blood leukocyte count (p = 0.049) were significantly associated with bacteremia. Multivariable logistic regression confirmed S. aureus (OR = 9.6, p = 0.007) and platelet count (OR = 0.988 per 10^9/L, p = 0.011) as independent predictors. Knee involvement showed borderline significance (OR = 0.34, p = 0.064).
Discussion: In this cohort of patients with septic arthritis, bacteremia occurred over one-third of cases. S. aureus isolation and lower platelet count are independently associated with bacteremia. The strong association link with S. aureus supports the routine use of blood cultures in suspected S. aureus arthritis. The inverse association between platelet count and bacteremia is a novel and clinically relevant finding. Thrombocytopenia may reflect endothelial activation as presented in early sepsis.
Conclusion: We propose a simple clinical prediction framework in which the presence of S. aureus and thrombocytopenia alert the clinician to the likelihood of bacteremia.

046 - SISBEM SISTEMA INTEGRADO DE SAÚDE E BEM-ESTAR MULTIDISCIPLINAR

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Introdução: Pessoas com doenças (PcD) complexas como Fibromialgia (FM) e Encefalomielite Miálgica ou Síndrome de Fadiga Crônica (EM/SFC) enfrentam frequentemente uma prestação de cuidados de saúde fragmentada, resultando em abordagens descoordenadas, frustração dos envolvidos e uso ineficiente de recursos. Estas condições crónicas e debilitantes têm um impacto significativo na qualidade de vida e na capacidade funcional dos indivíduos, sendo frequentemente subdiagnosticadas, estigmatizadas e incompreendidas. As dificuldades de comunicação entre as PcD e os profissionais de saúde agravam ainda mais os desafios na gestão clínica e na continuidade dos cuidados.
Objetivos: Desenvolver um modelo integrado de assistência médica a PcD complexa, com foco na FM e EM/SFC, e criar ferramentas de recolha de dados que facilitem uma abordagem longitudinal, potencialmente multidisciplinar e interdisciplinar, eficaz.
Materiais e **Métodos:** Estudo piloto com PcD recrutadas através da Myos – Associação Nacional Contra a Fibromialgia e Síndrome de Fadiga Crónica. Para além da avaliação clínica padrão, foram aplicados questionários sobre sintomatologia, impacto da doença e autoeficácia, bem como questionários pré e pós-participação para validar a metodologia. A componente multidisciplinar prevista não foi concretizada. Todos os participantes forneceram consentimento informado e o estudo seguiu os princípios éticos aplicáveis à investigação com seres humanos.
Resultados: Cinco pessoas com FM e/ou EM/SFC foram inicialmente envolvidas, das quais três completaram as avaliações de base. Identificaram: a) sintomatologia significativa mal controlada, sobretudo dor e perturbações do sono b) desafios na caracterização de alguns sintomas, para os quais não existem instrumentos adequados e/ou validados para a população portuguesa; c) dificuldades na gestão de comorbilidades; d) lacunas de literacia em saúde.
Conclusões: A expansão deste modelo a um maior número de casos e a implementação da componente multidisciplinar são passos essenciais para uma avaliação mais robusta. Esta proposta distingue-se por priorizar o cuidado centrado na PcD, a recolha estruturada de dados e o potencial uso de ferramentas digitais para apoiar a continuidade e a coordenação dos cuidados. Um acompanhamento mais próximo por um gestor de caso (médico ou outro profissional de saúde) poderá mitigar as dificuldades comunicacionais frequentemente encontradas nesta população. O apoio de plataformas integradas de dados poderá ainda otimizar a articulação com especialistas, melhorar a eficiência do sistema, elevar a qualidade dos cuidados e reduzir a fragmentação assistencial.

049 - SARCOPENIA PREDICTS POORER MOBILITY AFTER HOSPITALIZATION WITH A FRAGILITY HIP FRACTURE

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Introduction: Sarcopenia and osteoporosis are associated with aging and represent a major health burden, leading to poor functional outcomes and death. We aimed to study the prevalence of sarcopenia after a fragility hip fracture and its association with mobility (elderly mobility scale – EMI) quality of life (Health Assessment Questionnaire – HAQ and EQ5D) and death.
Material and Methods: Cross-sectional single-center study including patients ≥ 50 years old with a fragility hip fracture registered in the portuguese national reg-

istry of rheumatic patients (reuma.pt) with an evaluation of hand-grip strength, anthropometry (calf circumference – CC or mid-upper arm circumference - MUAM), EMI, HAQ and EQ5D in up to 6 months after the fracture. Sarcopenia was diagnosed when low grip strength and low muscle quantity were present.

Results: 172 patients were included, mostly female (n= 139, 80.8%) and with a current age of 70 (2.83) years old. All patients were hospitalized after the fracture and 72.7% of the surgeries occurred in the first 48h. After discharge, 42 (24.4%) patients were referred to nursing homes. Half of the patients (n=88) performed physical rehabilitation after discharge and 2 patients died. Low muscle strength was present in 77 (44.8%) patients. According to anthropometry, 96 (55.8%) patients had low muscle quantity. A diagnosis of sarcopenia was made in 60 (34.9%) patients.

Sarcopenia was associated with older age (p=0.036), lower body mass index (p=0.001), lower EMI score, with more patients included in the worst mobility category (43.3% vs 24.1%, p=0.015) and higher disability according to HAQ (p=0.017, table 1). There was no association with death.

In the multiple linear regression, sarcopenia was an independent predictor of poorer mobility. Having sarcopenia represented a score of less -2.640 points in EMI (-4.604; -0.675, p=0.009), regardless of current age, being discharged to a nursing home or having performed physical rehabilitation post hip fracture.

Conclusions: The diagnosis of sarcopenia after a fragility hip fracture was associated with poorer mobility in the 6 months after the hospitalization and thus could be useful for predicting prognosis in this population.

051 - LONG-TERM FRACTURE INCIDENCE AND PREDICTORS IN SYSTEMIC LUPUS ERYTHEMATOUS PATIENTS: DATA FROM REUMA.PT

Mariana Diz-Lopes [1, 2], Carlos Marques-Gomes[1, 2], Teresa Martins-Rocha[1, 2], Miguel Correia Natal[2], Bárbara

049 – TABLE 1. Comparative analysis of the patients with and without sarcopenia

Variables	Sarcopenia (low muscle strength and quantity**)		
	Sarcopenia N=60	No sarcopenia N=112	p-value
Age (years), mean (SD)	81 (74.5-85)	78 (73.5-83.5)	0.036
Female, n (%)	48 (80)	91 (81.3)	0.843
Current smoker, n (%)	1 (1.7)	4 (3.6)	0.738
Alcohol consumption, n (%)	7 (12.1)	14 (12.5)	0.434
BMI, kg/m2, median (IQR)	21.3 (19.4-25.6)	27.1 (23.6-29.3)	<0.001*
Elderly mobility scale, median (IQR)	10.5 (6.8-17)	15 (8.8-18.0)	0.003*
Elderly mobility scale category, n(%)			0.015*
Good	21 (35)	63 (56.3)	
Intermedium	13 (21.7)	22 (19.6)	
Bad	26 (43.3)	27 (24.1)	
HAQ, median (IQR)	2.063 (1.563-2.531)	1.750 (0.968-2.250)	0.017*
EQD5D, median (IQR)	0.288 (0.125-0.406)	0.325 (0.288-0.657)	0.070
Previous fracture, n (%)	27 (45)	65 (59.6)	0.068
Time of the surgery after current fracture, n (%)			0.902
First 48h	42 (85.7)	83 (86.5)	
After 48h	7 (14.3)	13 (13.5)	
Physical rehabilitation after current fracture, n (%)	30 (56.6)	58 (58)	0.868
After discharge, n (%)			0.298
Home	36 (67.9)	36 (67.9)	
Nursing home	17 (32.1)	17 (40.5)	
DXA results (after fracture), n (%)			
BMD femur neck	0.729 (0.562-0.756)	0.669 (0.612-0.767)	0.389
T-Score femur neck	-2.2 (-3.550; -1.900)	-2.6 (-3.150; -1.800)	0.635
Visual acuity problems, n (%)	28 (46.7)	51 (45.5)	0.887
Audition problems, n (%)	31 (51.7)	41 (36.6)	0.055
Physical exercise, current, n (%)	29 (25.9)	9 (15)	0.101
Death, (%)	1 (1.7)	1 (0.9)	0.577

** low muscle strength defined as grip strength <27kg men; <16kg women; low muscle quantity defined as calf circumference <31cm and/or mid-upper arm circumference ≤28.6 cm men and ≤27.5 women). Diagnosis of sarcopenia according to EWGSOP2 definition. *Statistically significant, p<0.05

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Introduction: Patients with systemic lupus erythematous (SLE) have an increased bone fragility and fracture risk and this is thought to be related with inflammation and high disease activity but also due to therapeutic options, namely corticosteroids (CCT). SLE classically affects premenopausal women and represents per se a risk for earlier morbidity and mortality in this young population. We aimed to study the prevalence and risk factors for fractures in a portuguese population with SLE.
Methods: Retrospective single-center study including patients with SLE diagnosis according to the 2019 EULAR/ACR classification criteria extracted from Reuma.pt/SLE (portuguese national registry). Patients were excluded if they were lost to follow-up for reasons other than death. Vertebral radiographies and clinical registries were reviewed for fractures. The outcome of fractures was compared using Kaplan-Meier with the log rank test and cox regression with univariate and multivariate models adjusting for covariates.
Results: A total of 170 patients with SLE were included, mostly female (n=156, 75%). Mean age at diagnosis was 32.1±13.5 years old, median follow-up time was 22 (15.4-30.2) years, and the mean current age was 54.1 ±12.6 years old. Current CCT dosage was 2.5 (0-5.0) mg prednisolone equivalent, 84 (49.4%) patients were currently taking classic disease modifying rheumatic drugs (DMARDs) and 24 (14.1%) biologic DMARDs. A total of 71 patients (34.1%) were no longer under CCT. Thirty-three (15.9%) fractures occurred during follow-up, including 17 (8.2%) clinical evident fractures and 24 (11.5%) asymptomatic vertebral fractures. Twenty-three (11.1%) patients had densitometric osteoporosis and 30 (17.6%) were under anti-osteoporotic treatment.

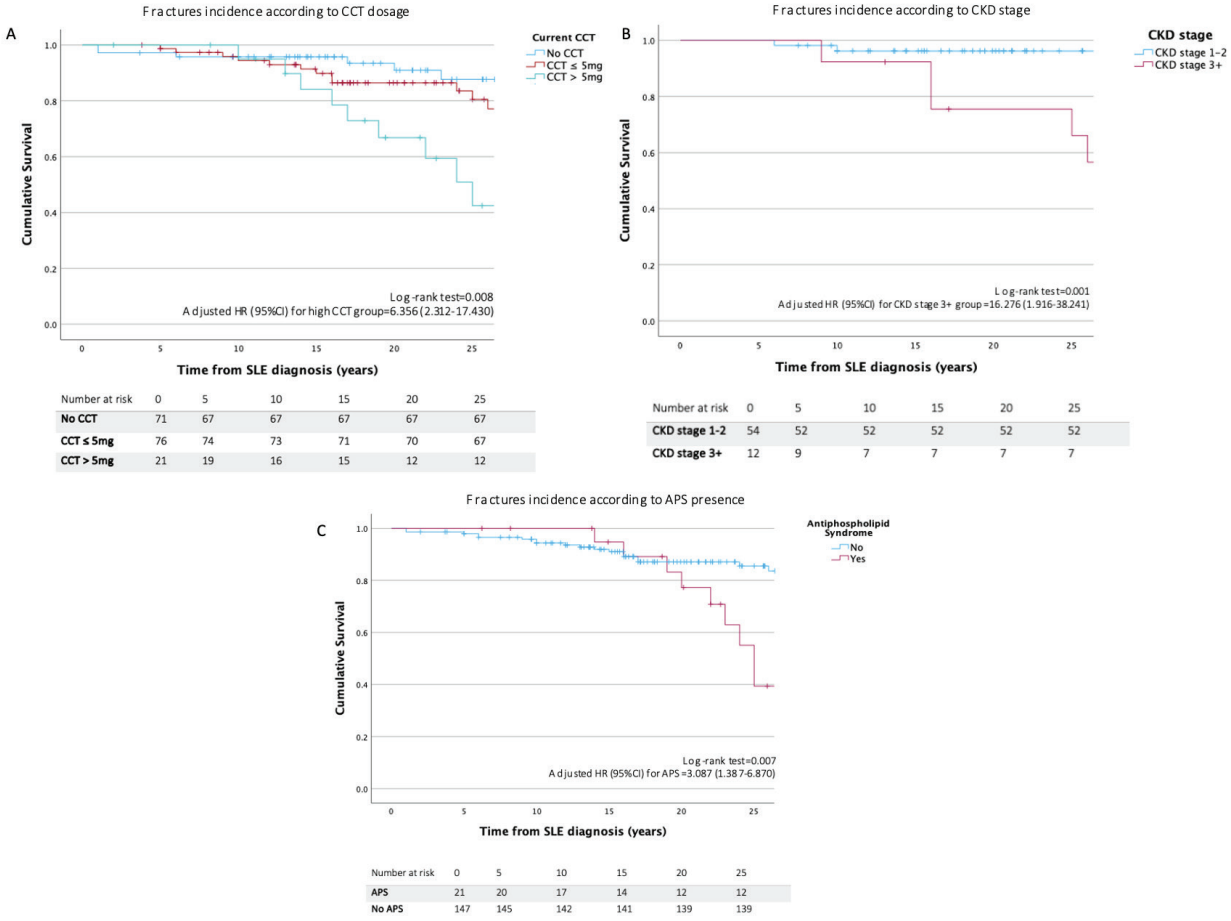
Patients who sustained fractures were older (63.1±9.7 vs 51.9±12.2, p=<0.001), had a higher BMI (27.1 vs 26.0, p=0.038) and had more frequent hypertension (p=0.003), diabetes (p=0.011) and antiphospholipid syndrome (p=0.017). The current CCT dosage was higher in patients with fractures (5, 3.1-6.9mg vs 2.5, 0-5mg, p<0.001). The occurrence of major cardiovascular events (p=0.048) and death (p=0.008) were also more prevalent in the fractures group. Amongst patients with renal involvement, a chronic kidney disease (CKD) stage ≥ 3 was associated with fractures (87.5% vs 11.7%, p<0.001).

In the survival analysis, patients under a CCT dosage > 5mg, lupus nephritis with CKD stage ≥3 and patients with associated antiphospholipid syndrome had a significantly higher incidence of fractures during follow-up (figure 1). When adjusting for current age, lupus nephritis CKD stage ≥ 3 (HR 16.276 CI 95% 1.916-38.241, p=0.011), higher corticosteroids dosage (HR 6.356 CI 95% 2.312-17.430, p<0.001), the presence of densitometric osteoporosis (HR 2.406 CI 95% 1.042-5.553, p=0.040) and APS (HR 3.087 CI 95% 1.387-6.870, p=0.006) independently predicted the occurrence of fractures during follow-up (table 1).
Discussion: SLE lupus nephritis patients with worse renal function, with concurrent antiphospholipid syndrome and under prednisolone >5mg/daily appear to be particularly at high-risk for fractures and may war-

051 – TABLE 1. Cox regression univariate and multivariate models for the outcome fractures

Parameters	Univariate COX regression				Multivariate COX regression**			
	HR	HR lower 95% CI	HR upper 95% CI	p-value	HR	HR lower 95% CI	HR upper 95% CI	p-value
Age	1.061	1.029	1.095	<0.001*				
BMI	1.001	0.999	1.003	0.259	1.001	0.999	1.003	0.287
Hypertension	2.172	1.068	4.418	0.032*	1.791	0.875	3.664	0.111
Diabetes	3.534	1.448	8.628	0.006*	2.751	1.123	6.740	0.027*
Antiphospholipid Syndrome	2.800	1.280	6.122	0.010*	3.087	1.387	6.870	0.006*
Osteoporosis evaluated by DXA	3.619	1.710	7.661	<0.001*	2.406	1.042	5.553	0.040*
Corticosteroids (>5mg vs <=5mg)	3.897	1.527	9.941	0.004*	6.356	2.312	17.430	<0.001*
Lupus nephritis with CKD (G3+ vs G1-2)	21.553	2.627	76.862	0.004*	16.276	1.916	38.241	0.011*

*Statistically significant, p<0.05; ** adjusted for age; HR – hazard ratio; CI – confident interval; BMI – body max index; CKD – chronic kidney disease



Footnote: CCT – corticosteroids; SLE – systemic lupus erythematous; HR – hazard ration; CKD – chronic kidney disease; APS – antiphospholid syndrome

051 – Figure 1. Fracture survival analysis according to (A) CCT dosage, (B) CKD stage, (C) APS presence

rant an earlier and more vigilant fracture prevention strategy. CCT were in use in the majority of our patients and the higher incidence of fractures in the group on >5mg/daily emphasizes the need to aim for the lowest dose and discontinuation of CCT.

052 - MAJOR ORGAN INVOLVEMENT PREDICTS MAJOR ADVERSE CARDIOVASCULAR EVENTS (MACES) IN SYSTEMIC LUPUS ERYTHEMATOUS: DATA FROM REUMA.PT

Mariana Diz-Lopes [1,2], Bernardo Fernandes[1,3], Carlos Marques-Gomes[1,2], Teresa Martins-Rocha[1,2], Miguel Correia Natal[2], Bárbara Fernandes Esteves[2], Mariana R Sebastião[4], Inês Almeida[5], Miguel Bernardes[1,2], Lúcia Costa[2]
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Introduction: Systemic lupus erythematous (SLE) is a chronic disease associated with an increased cardiovascular risk and, inherently, an increased prevalence of major cardiovascular events (MACEs) and death. Understanding the factors that can influence the risk of MACEs in this population is of major relevance, as considering only traditional risk factors may underestimate the cardiovascular (CV) burden in SLE patients. We aimed to study the prevalence of MACEs in a Portuguese sample of SLE patients and the risk factors associated with its occurrence.
Methods: Retrospective single-center study including patients with SLE diagnosis according to the 2019 EULAR/ACR classification criteria extracted from Reuma.pt/SLE (the Portuguese national registry), followed in our center in the last 40 years. Patients were excluded if they were lost to follow-up for reasons other than death. Univariable and multivariable logistic regres-

052 – TABLE I. Regression models of outcome variable (MACEs, n=23)

	Univariate logistic regression				Multivariate logistic regression adjusted for covariates**			
Parameters	OR	OR lower 95% CI	OR upper 95% CI	p-value	OR	OR lower 95% CI	OR upper 95% CI	p-value
Age	1.056	1.017	1.095	0.005*	1.047	1.006	1.089	0.023*
Sex (female vs male)	2.884	0.822	10.116	0.098	3.150	0.773	12.837	0.1.09
Dyslipidemia	2.733	1.043	7.161	0.041*	1.848	0.621	5.499	0.270
Hypertension	2.528	1.027	6.224	0.044*	1.596	0.582	4.376	0.363
Antiphospholipid Syndrome	3.850	1.366	10.853	0.011*	5.337	1.723	16.527	0.004*
Serositis	9.449	3.487	25.601	<0.001*	16.431	4.899	55.106	<0.001*
Lupus nephritis with CKD (G3+ vs G1-2)	5.000	1.068	23.400	0.041*	8.167	1.152	57.924	0.036*
Neurological involvement	4.912	1.270	19.003	0.021*	6.653	1.555	28.460	0.011*
Fractures	2.603	0.997	6.797	0.051	1.771	0.604	5.192	0.298

MACEs – major cardiovascular events; OR – odds ratio; CI – confidence interval; CKD – chronic kidney disease
*Statistically significant, p<0.05; **covariates: age, sex, hypertension and dyslipidemia

sion analyses were conducted, and all multivariable models were adjusted for patient sex, age, and traditional CV risk factors.

Results: A total of 170 patients with SLE were included, mostly female (n=156, 75%). Mean age at diagnosis was 32.1±13.5 years old, median follow-up time was 22 (15.4-30.2) years, and the mean current age was 54.1 ±12.6 years old. Regarding CV risk factors, 11.1% were current smokers, 33.7% had hypertension, 15.4% dyslipidemia and 6.3% diabetes. Median body max index was 25.7 (21.9-29.3) kg/m2. Current corticosteroid dosage was 2.5 (0-5.0) mg, 84 (49.4%) patients were currently taking conventional synthetic disease modifying antirheumatic drugs (csDMARDs) and 24 (14.1%) biologic DMARDs. A total of 71 patients (34.1%) were no longer under corticosteroids.

MACEs (defined as myocardial infarction - MI, stroke, or pulmonary thromboembolism) occurred in 23 patients (11.1%), with MI being the most frequent (n=10, 4.8%). Patients who sustained MACEs during follow-up were older (p=<0.001), had more frequent hypertension (p=0.039), dyslipidemia (p=0.046), antiphospholipid syndrome (p=0.015), serosal involvement (p=<0.001), neurological involvement (p=0.032) and had a worse renal function (p=0.050). This group of patients was more likely to have fractures during follow-up (34.8% vs 17%, p=0.045) and, as expected, had a higher incidence of death (39.1% vs 8.2%, p=<0.001). There were no differences regarding immunological features or current therapeutic options in the patients with MACEs.

Diagnosis of concurrent antiphospholipid syndrome (OR 5.337 CI 95% 1.723-16.527, p=0.004), serositis (OR 16.431 CI 95% 4.899-55.106, p=<0.001), neurological involvement (OR 6.653 CI 95% 1.555-28.640, p=0.011) and chronic kidney disease stage >=3 (OR 8.167 CI 95% 1.152-57.924, p=0.036) were independently associated with MACEs after adjusting for age, sex, and traditional CV risk factors (table 1). On the other hand, fracture occurrence and traditional risk factors were not associated with MACEs in the multivariable model.

Discussion: In a median follow-up of 22 years, portuguese SLE patients had a high prevalence of MACEs (11.1%). Our results are in line with existing evidence, sustaining that traditional CV risk factors alone are not good predictors of CV events in SLE patients, in whom chronic inflammation drives most cardiovascular burden. Major organ involvement (neurological, serosa, and severe renal) were independent predictors of MACEs, highlighting the relevance of disease severity in the development of CV events, despite adequate control of CV risk factors.

054 - PREGNANCY OUTCOMES IN RHEUMATOID ARTHRITIS AND POLYARTICULAR JUVENILE IDIOPATHIC ARTHRITIS: INSIGHTS FROM MULTIDISCIPLINARY RHEUMATOLOGY-OBSTETRICS COLLABORATION

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Background: Rheumatoid arthritis (RA) and polyarticular juvenile idiopathic arthritis (pJIA) are chronic inflammatory conditions that may influence pregnancy and have been associated with an increased risk of multiple adverse fetal, neonatal, and maternal outcomes. Multidisciplinary care involving rheumatology and obstetrics is essential to optimize management and improve outcomes.

Objectives: This study aimed to characterize pregnant women with RA and pJIA and to evaluate pregnancy outcomes in women with these rheumatic diseases followed in a multidisciplinary rheumatology and obstetrics clinic, focusing also on the impact of treatment with corticosteroids (CCT) and conventional disease-modifying antirheumatic drugs (cDMARDs).

Methods: Retrospective multicentric study, conducted in 2 Portuguese hospitals, with prospective follow-up including pregnant women over 18 years old with RA and pJIA according to classification criteria (ACR/EULAR 2010 for rheumatoid arthritis and ILAR for pJIA). Patients were followed between February 2020 and December 2024 at the Pediatric and Young Adult Rheumatology Clinic at Centro Hospitalar Universitário São João and Centro Hospitalar Tondela-Viseu. Data on maternal demographics, clinical and preconceptional data and maternal/fetal outcomes were collected, along with puerperal appointment information. Statistical analysis was performed using t-tests, non-parametric tests, and $\chi 2$ or Fisher's exact tests.

Results: A total of 34 pregnancies corresponding to 32 women were analyzed. The median age at conception was 32.8 years, with 35.3% of women aged >35 years at conception. Of note, preconception counseling was documented in 64.7% of cases (table 1). Regarding disease treatment during pregnancy, most women (82.4%) were treated with cDMARDs and/or bDMARDs (certolizumab (32.4%) and adalimumab (11.8%)). CCT use was noted in 55.9% of pregnancies, predominantly at prednisolone equivalent doses of 5-10 mg/day. None of the patients conceived while on teratogenic medication.

Maternal and perinatal outcomes were generally favorable. Spontaneous conception occurred in 78.1% of cases, and the median pregnancy duration was 39 weeks. Adverse maternal outcomes, such as gestational hypertension (9.7%) and pre-eclampsia (6.5%), were infrequent, and cesarean section (46.4%) was the most common mode of delivery. Neonatal outcomes showed low rates of complications, including NICU admission (6.7%) and no neonatal deaths. A significant difference in birth weight was observed between cDMARD-treated (3015 g) and non-cDMARD-treated (3450 g) groups (p=0.034). All adverse pregnancy outcomes are showed in table 2.

Discussion: Women with RA and pJIA followed in a multidisciplinary clinic demonstrated favorable pregnancy outcomes, with low rates of complications. Treatment with DMARDs and/or CCT did not significantly increase adverse maternal or neonatal events, except for a slight reduction in birth weight in the DMARD-treated group, which may be attributed to

054 – TABLE I. Sociodemographic, clinical and preconceptional data in overall pregnancies with RA and polyarticular JIA

	All (*n* = 34)
Age (years)* - mean±SD	32.8±5.5
Conception age >35 years - n(%)	12 (35.3)
Preconception counseling - n(%)	22 (64.7)
Disease duration (months)* - median (IQR)	95 (108)
Previous pregnancies - n(%)	16 (47.1)
Previous history of abortion - median (IQR)	7 (20.6)
Diabetes - n(%)	0 (0.0)
Hypo/hyperthrioidism - n(%)	2 (5.9)
Chronic AHT - n(%)*	0 (0.0)
CRD - n(%)	0 (0.0)
Baseline imunology - n(%)	
ANA	12 (35.3)
SSA	1 (2.9)
Pregnancy on contraindicated medication - n (%)	0 (0.0)
Steroids - n (%)	19 (55.9)
< 5 mg/day	6 (17.6)
6-10 mg/day	12 (35.3)
> 10 mg/day	0 (0.0)
cDMARD and/or bDMARD - n(%)	28 (82.4)
cDMARD - n(%)	19 (55.9)
SZP	14 (42.4)
HCQ	9 (26.5)
bDMARD - n(%)	14 (41.2)
Certolizumab	11 (32.4)
Adalimumab	4 (11.8)
Rheumatic disease - n(%)	
RA	23 (67.6)
Polyarticular JIA	11 (32.4)

Footnote: AHT - arterial hypertension; AZA - azathioprine; bDMARD - biologic disease-modifying drugs; cDMARD - conventional disease-modifying drugs; CRD - chronic renal disease; HCQ - hydroxychloroquine; IQR - Interquartile Range; JIA - juvenile idiopathic arthritis; RA - rheumatoid arthritis; SD - Standard deviation; SZP - sulfasalazine. *Missing values were considered.*

054 – TABLE II. Maternal and perinatal outcomes im women under tratment with and without cDMARDs and corticosteroids.

	All (*n* =34)	PDN (*n* =19)	without PDN (*n* =15)	p value	DMARDs (*n* =19)	without DMARDs (*n* =15)	p value
Spontaneous conception - n (%)	25 (78.1)	13 (68.4)	12 (80.0)	0.125	13 (68.4)	12 (80.0)	0.426
Flare during pregnancy - n (%)	3 (9.4)	2 (10.5)	1 (6.7)	1.000	1 (5.3)	2 (13.3)	0.568
Pospartum flare - n(%)	4 (14.8)	3 (15.8)	1 (6.7)	1.000	2 (10.5)	2 (13.3)	1.000
Spontaneous miscarriage (<20 weeks) - n(%)	1 (3.0)	0 (0.0)	1 (6.7)	0.455	1 (5.3)	0 (0.0)	1.000
Intrauterine death (>20 weeks) - n(%)	0 (0.0)						
Worsening chronic hypertension - n(%)	0 (0.0)						
Gestational AHT - n (%)	3 (9.7)	1 (5.3)	2 (13.3)	0.543	2 (10.5)	1 (6.7)	1.000
Pre-eclampsia - n(%)	2 (6.5)	1 (5.3)	1 (6.7)	1.000	2 (10.5)	0 (0.0)	0.488
Eclampsia - n(%)	0 (0.0)						
HELLP - n(%)	0 (0.0)						
Gestational diabetes - n(%)	4 (12.9)	1 (5.3)	3 (20.0)	0.272	2 (10.5)	2 (13.3)	1.000
Prgenancy duration (weeks) - median (IQR)	39.0 (1.0)	39.0 (1.0)	39.4 (1.0)	0.175	39.9 (2.0)	39.6 (1.0)	0.088
Gestational age <37 weeks at birth - n (%)	2 (6.7)	2 (10.5)	0 (0.0)	0.503	2 (10.5)	0 (0.0)	0.492
PROM - n(%)	4 (13.3)	3 (15.8)	1 (6.7)	0.632	4 (21.1)	0 (0.0)	0.113
Intraamniotic infection - n(%)	0 (0.0)						
Oligohydramnious - n(%)	0 (0.0)						
Polyhydramnious - n(%)	1 (3.3)	1 (5.3)	0 (0.0)	1.000	1 (5.3)	0 (0.0)	1.000
Need of labor induction - n(%)	7 (25.0)	5 (26.3)	2 (13.3)	0.396	5 (26.3)	2 (13.3)	0.396
Cesarian section - n(%)	13 (46.4)	7 (36.8)	6 (40.0)	0.743	8 (42.1)	5 (33.3)	0.431
Emergency cesarian section	2 (5.9)	1 (5.3)	1 (6.7)	1.000	2 (10.5)	2 (13.3)	0.492
Postpartum haemorrhage - n(%)	0 (0.0)						
Maternal postpartum infection* - n(%)	1 (3.3)	0	1 (6.7)	0.400	1 (5.3)	0 (0.0)	1.000
Maternal potspartum death* - n(%)	0 (0.0)						
Hospitalization duration - IQR	3.0 (1.0)	4.0 (1.0)	3.0 (2.0)	0.959	3.0 (2.0)	3.0 (1.0)	0.801
Maternal ICU admission - n(%)	1 (3.4)	1 (5.3)	0 (0.0)	1.000	1 (5.3)	0 (0.0)	1.000
Fetal Growth Restriction	3 (10.0)	3 (15.8)	0 (0.0)	0.255	2 (10.5)	1 (6.7)	1.000
Small for Gestational Age	2 (6.7)	2 (10.5)	0 (0.0)	0.503	2 (10.5)	0 (0.0)	0.492
Large for Gestational Age	2 (6.7)	2 (10.5)	0 (0.0)	0.503	1 (5.3)	1 (6.7)	1.000
Fetal malformations	2 (6.7)	2 (10.5)	0 (0.0)	0.503	2 (10.5)	0 (0.0)	0.492
Birth weight (g) - median (IQR)	3310.0 (548.0)	3220.0 (1090.0)	3380.0 (340.0)	0.799	3015 (760)	3450 (380)	**0.034**
<2500 g	2 (6.9)	2 (10.5)	0 (0.0)	0.498	2 (10.5)	0 (0.0)	0.488
<1500 g	1 (3.4)	1 (5.3)	0 (0.0)	1.000	1 (5.3)	0 (0.0)	1.000
<1000 g	0 (0.0)						
Birth length (cm) - median (IQR)	49.0 (3.0)	49.0 (3.0)	49.0 (2.0)	0.874			0.204
Newborn ICU admission - n(%)	2 (6.7)	2 (10.5)	0 (0.0)	0.503	2 (10.5)	0 (0.0)	0.492
Newborn infections - n(%)	0 (0.0)						
Other newborn complications - n(%)	0 (0.0)						
Neonatal death - n(%)	0 (0.0)						

Footnote: IQR - Interquartile Range. PROM - premature rupture of membranes; SD - Standard deviation. *Missing values were considered . *6 weeks after delivery . **Fetal malformations* : patent foramen ovale and equinovarus foot.

more severe disease in patients requiring immunosuppressive therapy to control disease activity. These findings highlight the importance of close monitoring and multidisciplinary care in optimizing pregnancy outcomes in this population.

057 - SAFETY OF BDMARDS DURING PREGNANCY IN PATIENTS WITH RHEUMATIC DISEASES AND ITS IMPACT IN NEWBORNS: DATA FROM A TERTIARY CENTRE.

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Background: The potential risk of biotechnological drug therapy needs to be weighed against the risk of untreated maternal rheumatic diseases (RD). There is a lack of literature on the safety and associated risks for the mother and the child of biologic disease-modifying drugs (bDMARDs) use during pregnancy.
Purpose: To determine the prevalence of pregnant patients with RD using bDMARDs.
To analyze safety and pregnancy outcomes for women and infants exposed to bDMARDs.

Methods: A single-centre retrospective study with prospective follow-up at a tertiary hospital included pregnant women with RD. Data on maternal demographics, clinical details, treatments, and maternal/fetal outcomes were collected, along with puerperal appointment data. Statistical analyses used t-tests, non-parametric tests, and $\chi 2$ or Fisher's exact tests.
Results: A total of 109 pregnancies (100 women) were analyzed, with 33 (30.3%) exposed to bDMARDs (TNF inhibitors: certolizumab until one week before labor and adalimumab/etanercept until 28 weeks). Most pregnancies (74.2%) included preconception consultations (table 1). The bDMARD group had longer disease duration at conception ($p<0.05$) and higher gestational age at birth (38.9 weeks, p=0.025).

Regarding disease flares during pregnancy, 2 cases were reported in the bDMARD group, which also accounted for all postpartum flares observed (only 5.5%). In terms of pregnancy outcomes, including miscarriage, pre-eclampsia, premature rupture of membranes, and cesarean section, a low prevalence of these events was observed, with no significant differences between the groups (table 2). Maternal postpartum infections were rare overall (0.9%), with no cases recorded in the group receiving bDMARDs.

Pregnancies exposed to bDMARDs showed a lower frequency of fetal growth restriction (9.1%), and only three cases of fetal abnormalities were identified. High-

057 – TABLE I. Sociodemographic, clinical and preconceptional data in overall pregnancies with RD

	All (*n* =109)	under bDMARD (*n* =33)	without bDMARD (*n* =74)	*p* value
Age (years)* - mean±SD	33.0±4.9	32.6±5.1	33.1±4.8	0.834
Conception age >35 years - n(%)	33 (30.3)	9 (27.3)	23 (31.08)	0.820
Disease duration (months)* - median (IQR)	71 (97)	84 (102)	60 (96)	**0.033**
Preconceptional appointment - n(%)	70 (64.2)	23 (74.2)	46 (62.2)	0.371
Diabetes - n(%)	1 (0.9)	0 (0.0)	1 (1.4)	1.000
Hypo/hyperthiroidism - n(%)	11 (10.1)	2 (6.1)	9 (12.2)	0.496
Chronic AHT - n(%)	4 (3.7)	0 (0.0)	4 (5.4)	0.304
CRD - n(%)	3 (2.8)	0 (0.0)	3 (4.1)	0.550
Baseline imunology - n(%)				
ANA	42 (38.5)	9 (27.3)	33 (44.6)	0.088
Low complement	3 (2.7)	0 (0.0)	3 (4.1)	1.000
High anti-dsDNA	8 (7.3)	1 (3.0)	7 (9.5)	0.431
Steroids - n (%)	36 (33.3)	9 (27.3)	27 (36.5)	0.508
cDMARD - n(%)				
AZA	10 (9.2)	1 (3.0)	9 (12.2)	0.166
SZP	16 (14.7)	6 (18.2)	10 (12.5)	0.562
HCQ	31 (28.4)	1 (3.0)	30 (40.5)	**<0.001**
MMF	1 (0.9)	1 (3.0)	1 (1.4)	1.000
bDMARD - n(%)				
Certolizumab		25 (22.9)		
Adalimumab		9 (8.3)		
Etanercept		1 (3.0)		
Rheumatic disease - n(%)				**<0.001**
Axial spondyloarthritis	30 (27.5)	15 (45.5)	15 (20.3)	
Rheumatoid arthritis	17 (15.6)	4 (12.1)	13 (17.6)	
SLE	16 (14.7)	0 (0.0)	16 (21.6)	
Psoriatic arthritis	11 (10.1)	7 (21.2)	4 (5.4)	
Juvenile idiopathic arthritis	9 (8.3)	7 (21.2)	2 (2.7)	
Others**	23 (21.1)	0 (0.0)	24 (32.4)	

Footnote: AHT - arterial hypertension; AZA - azathioprine; bDMARD - biologic disease-modifying drugs; cDMARD - conventional disease-modifying drugs; CRD - chronic renal disease; HCQ - hydroxychloroquine; IQR - Interquartile Range; MMF - mycophenolate mofetil; SD - Standard deviation; SLE - systemic lupus erythematous; SZP - sulfasalazine; **Other rheumatic diseases: overlap SLE and Sjogren's disease; undifferentiated connective tissue disease; mixed connective tissue disease; Sjogren's disease; dermatomyositis; Synovitis, acne, pustolosis, hyperostosis and osteitis; antiphospholipid syndrome; sarcoidosis; multiple osteochondrosis. *Missing values were considered.*

057 – TABLE II. Maternal and perinatal outcomes

	All (*n* =109)	bDMARD (*n* =33)	without bDMARD (*n* =74)	p value
Spontaneous conception - n (%)	97 (88.9)	30 (90.9)	67 (90.5)	0.676
≥1 maternal or pregnancy outcome - n(%)	39 (35.8)	12 (36.4)	27 (36.5)	0.653
Flare during pregnancy - n (%)	3 (2.8)	2 (6.1)	1 (1.4)	0.252
Pospartum flare - n(%)	6 (5.5)	6 (18.2)	0 (0.0)	0.170
Spontaneous miscarriage (<20 weeks)	7 (6.4)	1 (3.0)	5 (6.8)	0.661
Intrauterine death (>20 weeks)	0 (0.0)			
Worsening chronic hypertension - n(%)	4 (3.7)	1 (3.0)	3 (4.1)	1.000
Gestational AHT - n (%)	5 (4.6)	3 (9.1)	2 (2.7)	0.324
Pre-eclampsia - n(%)	7 (6.4)	3 (9.1)	4 (5.4)	0.678
Eclampsia - n(%)	0 (0.0)			
HELLP syndrome - n(%)	0 (0.0)			
Gestational diabetes - n(%)	6 (5.5)	3 (9.1)	3 (4.1)	0.396
Prgenancy duration (weeks) - median (IQR)	38.1 (1.62)	38.9 (2.43)	37.6 (2.53)	**0.025**
Gestational age <37 weeks at birth - n (%)	14 (12.8)	4 (12.1)	10 (13.5)	0.762
PROM - n(%)	8 (7.3)	2 (6.1)	6 (8.1)	0.712
Intraamniotic infection - n(%)	0 (0.0)			
Oligohydramnious - n(%)	1 (0.9)	1 (3.0)	0 (0.0)	0.333
Polihydramnious - n(%)	2 (1.8)	0 (0.0)	2 (2.7)	1.000
Need of labor induction - n(%)	35 (32.1)	12 (36.4)	23 (31.1)	0.820
Cesarian section - n(%)	43 (39.4)	16 (48.5)	26 (35.1)	0.649
Emergency cesarian section	16 (14.7)	3 (9.1)	13 (17.6)	0.340
Postpartum haemorrhage - n(%)	5 (4.6)	0 (0.0)	5 (6.8)	0.166
Maternal postpartum infection* - n(%)	1 (0.9)	0 (0.0)	1 (1.4)	1.000
Maternal potspartum death** - n(%)	0 (0.0)			
Hospitalization duration - IQR	3 (2.8)	3 (9.1)	4 2	0.084
Maternal ICU admission - n(%)	1 (0.9)	1 (3.0)	0 (0.0)	0.330
≥1 fetal and neonatal outcomes - n(%)	13 (11.)	4 (12.1)	9 (12.2)	1.000
Fetal Growth Restriction	8 (7.3)	3 (9.1)	5 (6.8)	1.000
Small for Gestational Age	6 (5.5)	1 (3.0)	5 (6.8)	0.413
Large for Gestational Age	4 (3.7)	3 (9.1)	1 (1.4)	0.121
Fetal malformations***	9 (8.3)	3 (9.1)	6 (8.1)	1.000
Birth weight (g) - median (IQR)	3087,5 (629)	3315 (683)	2980 (606)	**0.033**
<2500 g	7 (6.4)	2 (6.1)	5 (6.8)	1.000
<1500 g	1 (0.9)	0 (0.0)	1 (1.4)	0.360
<1000 g	0 (0.0)			
Birth lenght (cm) - median (IQR)	49 (3)	49 (3)	49 (3)	0.580
Newborn ICU admission - n(%)	3 (2.8)	1 (3.0)	2 (2.7)	1.000
Newborn infections* - n(%)	0 (0.0)			
Neonatal death - n(%)	0 (0.0)			

Footnote: bDMARD - biologic disease-modifying drugs; IQR - Interquartile Range. PROM - premature rupture of membranes; SD - Standard deviation. *until 6 weeks after labour. **until 30 days after labour. ***Fetal malformations: cryptorchidism (1), patent foramen ovale (2), equinovarus foot (1), pyelocaliceal dilatation (1), microcephaly (1), valvular insufficiency (1), persistence of the left superior vena cava (1), ventricular septal defect (
Missing values were considered.

er birth weight was associated with bDMARD use (p=0.033), with only two cases of low birth weight observed in this group. No neonatal infections were reported, and admission to the intensive care unit during the neonatal period was required in 2.8% of pregnancies, with no significant differences between the groups (p=1.000).

Conclusions: No link was found between bDMARD use in pregnancy and maternal/neonatal infections or adverse outcomes. The findings support bDMARD safety during pregnancy, with favorable outcomes and low disease flare rates.

066 - MATERNAL-FETAL OUTCOMES AND RISK FACTORS IN IDIOPATHIC INFLAMMATORY MYOPATHIES: A PORTUGUESE MULTICENTER COHORT STUDY

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Background: Idiopathic inflammatory myopathies (IIM) are rare autoimmune diseases predominantly affecting women of reproductive age. Although advances in multidisciplinary care have enabled more IIM patients to pursue pregnancy, data on maternal and perinatal outcomes remain limited.
Objectives: To evaluate maternal and fetal outcomes in IIM pregnancies and explore associations with disease activity, antibody profile, and immunosuppressive strategies.
Methods: This multicenter retrospective study included IIM pregnancies managed at four Portuguese centres (2009–2023) following a national data call.
Results: We identified 12 pregnancies in 10 women with diverse IIM phenotypes: overlap syndromes (n=4), antisynthetase syndrome (ASyS, n=3), dermatomyositis (DM, n=3), immune-mediated necrotizing myopathy (IMNM, n=1), and polymyositis (PM, n=1). Overlaps included systemic sclerosis–PM (n=2), rheumatoid arthritis–PM (n=1), and PM-juvenile idiopathic arthritis (JIA, n=1), with the myositis phenotype being the predominant feature.

Clinical phenotypes, immunosuppressive regimens, autoantibody profiles and pregnancy outcomes are summarised in Table 1.

Preconception counselling occurred in 7 pregnancies (58%). Interstitial lung disease was present in 4 cases (33%), and all tested negative for antiphospholipid antibodies.

Immunosuppressive therapy included conventional DMARDs in 11 pregnancies: azathioprine (n=6; 3 overlap, 2 DM, 1 PM) and hydroxychloroquine (n=8; 4 overlap, 2 DM, 2 ASyS). Biologics (rituximab, tocilizumab) and IVIG were selectively used in cases of severe or refractory disease.

One unplanned ASyS pregnancy, with early exposure to mycophenolate mofetil and cyclophosphamide,

066 – TABLE I. Clinical characteristic, immunological profiles and pregnancy outcomes in women with idiopathc inflammatory myopathies

Disease phenotype (n)	DM (3)	IMNM (1)	ASyS (3)	PM (1)	Overlap (4)	IIM (12)
Clinical features, (n)	Articular (1), muscle (3), skin (3), microvascular (3)	Muscle (1), microvascular (1)	Articular (3), muscle (3), skin (3), microvascular (3), lung (3)	Articular (1), muscle (1)	Articular (2), muscle (4), skin (2), microvascular (3), lung (2)	Articular (7), muscle (12), skin (8), microvascular (10), lung (5)
Myositis-specific or commonly associated myositis autoantibodies, (n)	Anti-Mi2 (1), Anti-Ro52 (2), Anti-TIF1γ (1)	Anti-SRP, Anti-Ro52	Anti-Jo1 (3), Anti-Ro52 (3)	Anti-Jo1, Anti-Ro52	Anti-PM/Scl (3), Anti-Ro52 (1)	*
Age at conception (years), median [IQR]	33.0 [32.0-37.0]	25 [*]	37.0 [33.0-37.5]	35.0 [*]	34.5 [32.8-36.5]	34.0 [31.3-37.8]
Disease duration at conception (years), median [IQR]	2.0 [1.0-3.5]	1 [*]	4 [3.4-5.5]	5.0 [*]	9.0 [5.8-14.5]	5 [2.3-6.8]
Stable disease at conception, n/N (%)	3 (100)	1 (100)	0	1 (100)	3/4 (75)	8/12 (67)
Use of glucocorticoids during pregnancy, n/N (%)	3 (100)	1 (100)	3/3 (100)	1 (100)	4 (100)	12 (100)
Use of low-dose aspirin during pregnancy, n/N (%)	2/3 (67)	0	2/3 (67)	1 (100)	1/4 (25)	6/12 (50)
Use of DMARD therapy during pregnancy, n/N (%)	3 (100)	0	3 (100)	1 (100)	4 (100)	11/12 (92)
Live births, n/N (%)	2/3 (67)	1 (100)	1/3 (33)	1 (100)	2/3 (67)	8/12 (67)
Early miscarriages and fetal death, n/N (%)	1/3 (33)	0	2/3 (67)	0	2/4 (50)	5/12 (33)
Gestational age at delivery (weeks), median [IQR]	38.6 [38.5-36.2]	40.3 [*]	33.7 [*]	39 [*]	38.4 [38.0-38.7]	39 0 [37.5-39.9]
Preterm births, n/N (%)	0	0	1/3 (33)	0	0	1/12 (8)
Birth weight in grams, median [IQR]	2910 [2910-2915]	3925 [*]	1745 [*]	3060 [*]	3217 [2869-3566]	2920 [2520-3915]
Fetal growth restriction or small for gestational age, n/N (%)	0	0	1/3 (33)	0	0	0
Cesarean section, n/N (%)	2/3 (67)	1 (100)	1/3 (33)	0	1/4 (25)	3/6 (50)
Preeclampsia or eclampsia, n/N (%)	0	0	0	0	0	0
Disease flares during pregnancy, n/N (%)	2/3 (67)	1 (100)	3 (100)	0	2/4 (50)	8/12 (67)
Disease flares in postpartum period, n/N (%)	0	1 (100)	1/2 ‡	0	0	2/12 (17)

resulted in early miscarriage.

All patients received glucocorticoids (GC), in 42% (3 ASyS, 1 DM and 1 overlap), the dose exceeded 7.5mg/day. Low-dose aspirin was used in 6 pregnancies, and prophylactic heparin in 1 ASyS case.

Flares occurred in 8 pregnancies (67%), including 4 women who had disease control at conception (2 DM, 1 overlap and 1 IMNM). Two IIM cases were first diagnosed during pregnancy: 1 IMNM presenting with proximal weakness and elevated CK levels, and 1 DM with skin rash and polyarthritis. Both received AZT and high doses of GC.

GC dose escalation was required in 7 flares (3 ASyS, 2 overlap, 1 DM, 1 IMNM). One DM patient had subclinical creatine kinase (CK) elevation that went unnoticed prior to the adverse outcome, and GC doses were therefore not increased.

Conversely, 4 (33%) women (1 DM, 1 PM and 2 overlap) maintained disease remission and had no APOs.

APOs were recorded in 5 pregnancies: 3 first-trimester miscarriages, 1 stillbirth at term (ASyS with high anti-Jo1 titers: 11828 U/mL), and 1 fetal growth restriction with a newborn small for gestational age. All APOs occurred in the context of disease flare. Only two events occurred in patients with disease control at conception: one DM patient, who experienced miscarriage despite optimized therapy, and one PM–JIA overlap case, who had a mild cutaneous flare also resulting in miscarriage.

No congenital anomalies, neonatal infections, or neonatal lupus were observed.

Postpartum flares (n=2) were limited to musculoskeletal involvement.

Conclusion: Pregnancy in women with IIM is feasible but associated with increased risk of adverse outcomes, particularly when disease is active during gestation. These findings reinforce the importance of preconception remission and maintaining pregnancy-compatible immunosuppression – especially in women with high anti-Jo1 titres – to optimize maternal and neonatal outcomes.

067 - ASSOCIATION BETWEEN ESOPHAGEAL SYMPTOMS AND HIGH-RESOLUTION MANOMETRY FINDINGS: ENHANCING MOTILITY ASSESSMENT WITH THE MULTIPLE SWALLOWING TEST

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Background: Gastrointestinal involvement, particularly esophageal dysmotility, is a common and debilitating manifestation in systemic sclerosis (SSc). Most SSc patients report symptoms such as dysphagia, heartburn or reflux. High-resolution esophageal manometry (HRM) is an essential method for diagnosing and assessing these dysfunctions. Multiple rapid swallows (MRS) during HRM, a simple provocative test, has been proposed to assess peristaltic reserve (PR).
Objectives: To describe the manometry findings in patients with SSc.

To analyze the association of manometry findings with esophagogastric symptoms.

To evaluate the role of peristaltic reserve in assessing esophageal motility using HRM.
Methods: Retrospective single-center study conducted in a tertiary centre. All included patients followed in the rheumatology department were diagnosed with SSc according to ACR/EULAR 2013 classification criteria or Very Early Diagnosis of Systemic Sclerosis (VEDOSS) criteria. Data on sociodemographic, clinical (presence or absence of symptoms of dysphagia, reflux - heartburn or regurgitation, early satiety) and esophageal manometry findings were collected. Manometry reports were analyzed. Statistical analysis was performed using $\chi 2$ or Fisher's exact tests to evaluate the association between categorical variables.
Results: A total of 74 patients diagnosed with SSc (90.5% female; mean age at diagnosis 52.4 ± 13.5 years) were evaluated. Sixty-eight patients (91.9%) met the ACR/EULAR 2013 classification criteria, while 6 patients met the VEDOSS criteria. Limited cutaneous scleroderma was the predominant subtype (67.6%). Notably, 63% of patients were receiving proton pump inhibitors, and 9.6% were using prokinetics at the time of manometry.

Among the 50 (67.6%) patients with esophagogastric symptoms, dysphagia was reported by 32 (43.2%) patients, heartburn by 21 (28.4%), regurgitation by 7 (9.5%), and early satiety by 6 (8.1%). Regarding HRM findings, half of the patients (50%) exhibited normal manometry results. The most common abnormalities were ineffective esophageal motility (IEM) (16.2%), absent contractility (13.5%), and esophagogastric junction (EGJ) outflow obstruction (6.8%). MRS testing revealed that more than half of the patients (n = 43, 58.1%) demonstrated loss of esophageal PR (low, LPR, or absent, APR).

Except for heartburn (p = 0.013), none of the other symptoms showed a significant association with ab-

067 – TABLE I. Sociodemographic, clinical and manometry data in patients with systemic sclerosis

		All (*n* =74)
Age at diagnosis (years)* - mean±SD		52.4±13.5
Sex - n (%)		
	Female	67 (90.5)
	Male	7 (9.5)
Race - n(%)		
	White european	65 (87.8)
	White hispanic	2 (3.0)
Classification Criteria ACR/EULAR 2013 - n(%)		68 (91.9)
Disease subtype - n(%)		
	Limited cutaneous scleroderma	50 (67.6)
	Overlap syndrome**	11 (14.9)
	Sjogren's disease	4 (5.4)
	Systemic lupus eruthematous	4 (5.4)
	Rheumatoid arthiritis	3 (4.1)
	Inflammatory myopathy	2 (2.7)
	Sinescleroderma	4 (6.9)
	VEDOSS	6 (8.1)
	Diffuse scleroderma	3 (4.1)
Antinuclear antibodies - n(%)		72 (97.3)
sSC related antibodies - n(%)		
	Anticentromere	43 (58.1)
	CENP-A*	28 (44.4)
	CENP-B*	33 (44.6)
	Anti-Scl70	15 (20.3)
	Anti-RNA polymerase III	2 (2.7)
	Anti-SSA*	13 (18.1)
	Anti-Ro52*	11 (15.5)
	Anti-PM/Scl*	5 (7.9)
	Anti-Th/To*	3 (4.8)
	Anti-Ku*	3 (4.8)
	Anti-U1-RNP*	1 (1.6)
	Anti-U3-RNP*	0 (0.0)
	Anti-U11/U12-RNP*	0 (0.0)
	Anti-SSB*	0 (0.0)
Alcohol consumption - n(%)*		
	Absent or sporadic	53 (71.6)
	Regular consumption	7 (11.7)
Tobacco use - n(%)*		
	Current smoker	6 (10.3)
	Former smoker	7 (12.1)
	Non-smoker	45 (77.6)
Medications at the time of manometry - n(%)*		
	PPi	46 (63.0)
	CCB	42 (57.5)
	Nifedipin	36 (49.3)
	Amlodipin	5 (6.8)
	Lercanadipin	1 (1.4)
	Imunosupressants	25 (34.2)
	MTX	11 (15.1)
	HCQ	8 (11.0)
	AZA	3 (4.1)
	MMF	2 (2.7)
	LFN	1 (1.4)
	Benzodiazepines	22 (30.1)
	SSRIs	17 (23.3)
	Opiates	17 (23.3)
	NSAIDs	14 (19.2)
	Prokinetics	7 (9.6)
	Aspirin	7 (9.6)
	Steroids	6 (12.2)
	TAD	4 (5.5)
	PDE5i	2 (2.7)
Esophageal/gastric symptoms - n(%)		50 (67.6)
	At diagnosis	25 (36.8)
	Dysphagia	32 (43.2)
	Heartburn	21 (28.4)
	Early satiety	6 (8.1)
	Regurgitation	7 (9.5)
	Others (vomiting)	1 (1.4)

continues on the next column

067 – TABLE I. Continuation

Disease duration (months) until manometry** - median (IQR)		
Manometry reports - n (%)***		
	Normal	37 (50.0)
	IEM	12 (16.2)
	AC	10 (13.5)
	EGJ outflow obstruction	5 (6.8)
	Hypercontractile esophagus	5 (6.8)
	Inconclusive	2 (2.7)
	Distal esophageal spasm	2 (2.7)
	Type I Achalasia	1 (1.4)
Multiple Rapid Swallows test assessement - n(%)		
	Low peristaltic reserve	28 (42.4)
	Absent peristaltic reserve	15 (20.3)

Footnote: AC - absent contractility; ACR - American College of Rheumatology; CCB - calcium channel blockers; EGJ - esophagogastric junction; IEM - ineffective esophageal motility; IQR - Interquartile Range; PPi - Proton pump inhibitors; SD - Standard deviation; SSRIs - Selective serotonin reuptake inhibitors; TAD - tricyclic antidepressants; VEDOSS - Very Early Diagnosis of Systemic Sclerosis. **Missing values: 1 for medica tions, 16 for tobacco use and alcohol consumption; 11 for CENP-A, CENP-B, Anti-PM/Scl, Anti-Th/To, Anti-Ku, Anti-U3-RNP, Anti-U11/U12-RNP; 2 for anti-SSA, 3 for anti-Ro52, 4 for anti-SSB; 2 for manometry diagnosis. **Considering the date of diafgnosis.* ***2 inconclusive results due to patient intoilerance

normal manometry results (Table 2). This pattern was also observed for manometry diagnoses. However, the analysis of MRS test alterations revealed a significant association between LPR and APR with dysphagia (p = 0.039). Composite analysis indicated that the combination of ineffective esophageal motility (IEM), absent contractility, or MRS alterations was strongly associated with dysphagia or heartburn (p < 0.001), as well as with esophagogastric symptoms overall (p = 0.013).

Conclusions: The study highlights the significant associations between esophageal manometry findings, peristaltic reserve, and esophagogastric symptoms in SSc patients. This suggests that the MRS test provided additional diagnostic value, particularly for evaluating peristaltic reserve and its relationship to dysphagia and heartburn, the most common symptoms reported by patients with SSc. Notably, some patients with normal manometry had loss of peristaltic reserve, emphasizing the importance of including MRS testing in the assessment. These findings underscore the importance of comprehensive HRM evaluation, including MRS, in the management of esophageal dysfunction in SSc patients.

068 - LOPÉCIA AREATA EM DOENTES SOB TERAPÊUTICA BIOTECNOLÓGICA NA ULSTMAD

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Introdução: A alopécia areata (AA) é uma doença autoimune caracterizada pela perda reversível de folículos pilosos, crónica e imprevisível. Tem uma prevalência

067 – TABLE II. Association of manometry results with esophageal/ gastric symptoms

	Symptoms (*n=50*)		Dysphagia (*n* =32)		Heartburn (*n* =21)		Dysphagia or Heartburn (*n* =53)		Regurgitation (*n* =7)		Early satiety (*n* =6)	
	n	*p value*	*n*	*p value*	*n*	*p value*	*n*	*p value*	*n*	*p value*	*n*	*p value*
Manometry results		0.108		0.658		**0.013**		0.074		0.254		0.423
Normal	22		15		6		20		2		2	
Anormal	27		16		15		26		5		4	
Diagnosis		0.592		0.702		0.059		0.271		0.186		0.461
IEM*	8		5		5		8		2		3	
AC*	8		5		5		8		1		1	
EGJOO	5		4		1		5		0		0	
HE	3		2		2		3		1		0	
DES	2		0		2		2		0		0	
A1	1		0		0		0		1		0	
Inconclusive	2		1		0		1		0		0	
MRSt*		0.088		**0.039**		0.737		0.107		0.354		0.646
LPR	21		16		8		21		1		3	
APR	12		8		6		12		2		2	
Composite analysis												
IEM or AC	16	0.612	10	0.766	10	0.056	16	0.318	3	0.670	4	0.073
MRSt alteration			24	**0.008**	14	0.586	33	**0.018**	3	0.413	5	0.656
IEM or AC or MRSt alteration	36	**0.013**	26	**0.002**	16	0.163	36	**<0.001**	4	0.698	6	0.081
Anormal manometry or MRSt alt	41	**0.005**	28	**0.005**	18	0.135	40	**<0.001**	5	1.000	6	0.311

Footnote: A1 - Type I achalasia; AC - absent contractility; APR - Absent peristaltic reserve; DES - Distal esophageal spasm; EGJOO - esophagogastric junction outflow obstruction; HE - Hypercontractile esophagus; IEM - ineffective esophageal motility; LPR - Low peristaltic reserve; MRSt - Multiple Rapid Swallows test assessement. *2 missings for IEM and CA (corresponding to inconclusive results); 8 missings for MRSt.

de 0.1 a 0.2% na população, afetando mais frequentemente pessoas com menos de 30 anos, e indivíduos com outras doenças autoimunes. Tem um carácter multifatorial, que envolve interações complexas entre fatores genéticos, ambientais e imunológicos. Encontramos publicados na literatura alguns casos de AA associados ao uso de terapêutica biotecnológica, sobretudo com a-TNFa.

Objetivo: Aferir a prevalência de AA na população de doentes com patologia reumática inflamatória seguida em consulta de Reumatologia da ULSTMAD sob terapêutica biotecnológica, e caracterizar estes doentes.

Métodos: Estudo retrospetivo que avaliou a presença de AA na população de doentes com patologia reumática inflamatória seguidos no Serviço de Reumatologia da ULSTMAD no período compreendido entre 1/2016 e 5/2025.

Resultados: De um total de 303 doentes sob terapêutica biotecnológica, foram encontrados 2 casos de AA (prevalência 0.66%). Os doentes tinham Artrite Reumatóide seropositiva (AR+) e a AA surgiu com o 1º tratamento biológico instituído (imagem 1). O primeiro caso ocorreu em 9/2018 e afetou uma mulher de 47 anos sob tocilizumab em monoterapia desde 2012. Durante 11 meses, foi tratada em consulta de Dermatologia com corticoterapia tópica, injetável intralesional e sistémica, com agravamento progressivo. Apenas após

068 – Figure 1. Alopecia areata em doentes com Artrite Reumatóide sob terapêutica biotecnológica

suspensão do tocilizumab, em 8/2019, apresentou melhoria substancial da AA, tendo alcançado resolução completa em 5/2022, sem recidiva até à data. Atualmente encontra-se em remissão sob etanercept. O segundo caso, em 1/2025, afetou um homem de 68 anos sob adalimumab desde 2020. O fármaco foi suspenso em 2/2025. Trata-se de um quadro recente, ainda em melhoria.

Conclusão: Embora não possa ser excluída a coincidência de outros fatores etiológicos/ concomitantes, a melhoria do quadro apenas após suspensão do fármaco, a ausência de recidivas (no 1º caso), e a existência da descrição de outros casos na literatura e da possível relação fisiopatológica (interferência dos biotecnológicos nos mediadores imunológicos associados à AA), suportam a hipótese de se tratar de um efeito adverso raro destas terapêuticas. De realçar que não estão descritos casos de AA claramente relacionados ao tocilizumab.

069 - PREDICTORS OF VISUAL SYMPTOMS AT DIAGNOSIS IN GIANT CELL ARTERITIS: A RETROSPECTIVE COHORT STUDY

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Background: Arteritic Ischemic Optic Neuropathy (AION) is among the most feared complications of giant cell arteritis (GCA), often leading to irreversible vision loss. It typically manifests with visual symptoms such as amaurosis fugax or diplopia. Despite advances in imaging and early diagnosis, predicting which patients are at higher risk of AION remains challenging. Identifying clinical predictors may allow for more personalized and intensive treatment strategies in selected patients.

069 – TABLE 1. Baseline characteristics of patients with and without visual symptoms at diagnosis

	Whole Cohort N = 46 (100.0%)	Without Visual Symptoms N = 30	With Visual Symptoms N = 16	p value
Male, n (%)	16 (34.8)	6 (20.0)	10 (62.5)	0.004
Age at diagnosis, mean ± SD	74.0 ± 9.0	71.2 ± 8.0	79.2 ± 8.7	0.003
Fever, n (%)	6 (13.0)	5 (16.7)	1 (6.3)	0.399
Weight Loss, n (%)	18 (40.9)	13 (43.3)	5 (31.3)	0.531
Asthenia, n (%)	12 (27.9)	11 (36.7)	1 (6.3)	0.067
Anorexia, n (%)	11 (25.6)	6 (20.0)	5 (31.3)	0.457
Night sweats, n (%)	2 (4.5)	2 (6.7)	0 (0.0)	0.540
Headache, n (%)	35 (76.1)	22 (73.3)	13 (81.3)	0.722
Temporal artery abnormalities, n (%)	22 (51.2)	12 (40.0)	10 (62.5)	0.134
Scalp sensitivity, n (%)	7 (15.9)	4 (13.3)	3 (18.8)	0.692
Mandibular Claudication, n (%)	20 (44.4)	12 (40.0)	8 (50.0)	0.578
Polymyalgia rheumatica, n (%)	21 (45.7)	17 (56.7)	4 (25.0)	0.037
Haemoglobin (g/dL), median (IQR)	11.6 (1.9)	11.5 (1.8)	11.9 (2.8)	0.217
Leucocytes (G/L), median (IQR)	9.0 (2.9)	8.7 (2.1)	10.2 (2.8)	0.033
Platelets (G/L), median (IQR)	304.5 (121.0)	301.0 (116.0)	345.0 (148.0)	0.243
ESR (mm/h), median (IQR)	67.5 (30.5)	70.0 (27.5)	65.0 (32.0)	0.915
CRP (mg/dL), median (IQR)	6.6 (8.1)	6.6 (8.3)	6.9 (8.4)	0.961
Positive temporal biopsy, n (%)	15 (78.9)	8 (88.9)	6 (66.7)	0.576
US halo sign, n (%)	25 (75.8)	16 (88.9)	8 (57.1)	0.096
LVV in PET, n (%)	12 (70.6)	11 (84.6)	1 (25.0)	0.053
Arterial Hypertension, n (%)	32 (69.6)	17 (56.7)	15 (93.8)	0.016
Dyslipidaemia, n (%)	23 (50.0)	16 (53.3)	7 (43.8)	0.535
Diabetes Mellitus, n (%)	8 (17.4)	5 (16.7)	3 (18.8)	1.000

Demographic and clinical features of the cohort, stratified by presence or absence of visual symptoms. Continuous variables are presented as median (IQR), and categorical variables as counts and percentages. Comparisons were made using Mann–Whitney U test or Fisher's exact test, as appropriate. CRP: C-reactive protein; ESR: Erythrocyte sedimentation rate; LVV: Large Vessel Vasculitis; PET: Positron emission tomography; US: Ultrassound.

Objectives: To identify independent predictors of visual symptoms in GCA.
Methods: We conducted a retrospective observational study including consecutive patients diagnosed with GCA between January 2010 and December 2024 at a tertiary rheumatology center. Patients fulfilled the 1990 ACR and/or 2022 ACR/EULAR classification criteria for GCA. Those with insufficient documentation or no baseline ophthalmologic assessment were excluded. Visual symptoms were defined as amaurosis, diplopia, or other disturbances attributed to GCA and confirmed by an ophthalmologist. Clinical and demographic data were compared between patients with and without visual symptoms. Variables significantly associated in univariate analysis were included in a multivariable binary logistic regression to identify independent predictors. A p-value < 0.05 was considered statistically significant for all analyses.
Results: A total of 46 patients were included (Table 1). Among them, 16 patients (34.8%) presented visual symptoms. Patients with visual symptoms were significantly more often male (62.5% vs. 20.0%, p = 0.004), older at the time of diagnosis (mean 79.2 ± 8.7 vs. 71.2 ± 8.0 years, p = 0.003), and more likely to have higher levels of leucocytes (median 10.2 vs. 8.7 G/L, p = 0.033) and arterial hypertension (93.8% vs. 56.7%, p = 0.016). Conversely, polymyalgia rheumatica (PMR) was more frequently observed in patients without visual symptoms (56.7% vs. 25.0%, p = 0.037). In univariate analysis, male sex (OR = 6.67, 95% CI 1.73 – 25.74), age at diagnosis (OR per year = 1.13, 95% CI 1.03 – 1.25), hypertension (OR = 11.47, 95% CI 1.31 – 100.4), and absence of PMR (OR = 0.26, 95% CI 0.07 – 0.98) were associated with visual symptoms. In multivariable analysis, male sex (OR = 6.04, 95% CI 1.18 – 30.88), older age (OR = 1.13, 95% CI 1.02 – 1.26), and hypertension (OR = 18.38, 95% CI 1.18 – 285.88) remained independent predictors.
Discussion: Our findings confirm that male sex and older age at diagnosis are independent predictors of visual symptoms in GCA, in line with previous reports. Notably, arterial hypertension also emerged as an independent predictor in our cohort. While it has been inconsistently reported in earlier studies, its role as an independent risk factor for visual involvement has not been clearly established in the literature. One possible explanation is that longstanding hypertension may impair microvascular autoregulation, contributing to optic nerve ischemia in the context of active vasculitis. Interestingly, the presence of PMR was significantly more frequent in patients without visual symptoms, and was inversely associated with visual involvement in univariate analysis. However, PMR did not remain an independent predictor in the multivariable model.
Conclusion: In our cohort, male sex, older age, and arterial hypertension were independently associated with the presence of visual symptoms in GCA. These easily available clinical factors may help physicians identify patients at higher risk of visual involvement.

071 - APPLICABILITY AND DIAGNOSTIC VALUE OF CHICAGO CLASSIFICATION 4.0 IN ASSESSING ESOPHAGEAL MOTILITY DISORDERS IN SYSTEMIC SCLEROSIS: A RETROSPECTIVE SINGLE-CENTER STUDY

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Background: Gastrointestinal involvement, particularly esophageal dysfunction, is a common and debilitating manifestation in systemic sclerosis (SSc). High-resolution esophageal manometry (HRM) serves as an essential method for diagnosing and assessing these dysfunctions. The last updated version of Chicago Classification (CCv4.0) categorizes esophageal motility disorders via an algorithmic scheme using metrics from esophageal HRM. Contrary to the Chicago 3.0 version (CCv3.0), this protocol introduces diagnostic criteria based on both supine and upright positions. To date, its utility in SSc patients has not been previously assessed.
Objective: To compare diagnostic outcomes using the CCv4.0 protocol (combined supine and upright positions) with the supine-only (Chicago 3.0) and with upright-only positions in SSc patients.
Methods: Retrospective single-center study conducted in a tertiary centre. All included patients followed in the rheumatology department were diagnosed with SSc according to ACR/EULAR 2013 classification criteria or Very Early Diagnosis of Systemic Sclerosis (VEDOSS) criteria. Data on sociodemographic, clinical, and esophageal manometry findings were collected prospectively since the introduction of a new manometry protocol (based on CCv4.0 criteria) in the gastroenterology department in 2020. Manometry reports were analyzed for the final diagnosis (based on the CCv4.0 criteria). Additionally, both the supine position (according to the CCv3.0 criteria) and upright position were classified considering the findings observed. Statistical analysis was performed using Cohen's kappa test to evaluate the agreement between categorical variables.

Results: A total of 58 patients diagnosed with SSc (93.1% female; mean age at diagnosis 53.3±12.7 years) were evaluated (table 1). Fifty-two patients (89.7%) met ACR/EULAR 2013 classification criteria and 6 patients met VEDOSS criteria. Limited cutaneous scleroderma (63.8%) was the predominantly disease subtype and 65.5% of all patients reported esophageal/gastric symptoms (32.1% at diagnosis). Half of the patients (50%) exhibited normal HRM findings, while the most common abnormalities were ineffective esophageal motility (IEM) (17.2%), absent contractility (13.8%), and esophagogastric junction (EGJ) outflow obstruction (6.9%). Substantial agreement (table 2) was observed between the CCv4.0 protocol and the supine-only ($\kappa = 0.748$; $p < 0.001$) and the upright-only ($\kappa = 0.762$; $p < 0.001$) positions, with moderate agreement between supine-only and upright-only ($\kappa = 0.599$; $p < 0.001$). Among the 6 patients with inconclusive results due to supine intolerance, upright manometry successfully provided a diagnosis.

Conclusions: The Chicago 4.0 protocol demonstrated significant agreement with both supine (and upright) diagnoses but highlighted the complementary value of upright positioning, especially for patients intolerant to the supine position or presenting with inconclusive findings. Although this combined approach ensures a more comprehensive assessment of esophageal function in SSc, the use of only the upright position may be sufficient in this population, simplifying the protocol in the future and reducing the associated discomfort. Further studies are required to validate these findings and explore their implications for SSc management strategies. This is the first study to evaluate the applicability of the CCv4.0 manometry criteria in patients with SSc.

067 – TABLE I. Sociodemographic, clinical and manometry data in patients with systemic sclerosis (SSc)

	All (*n* =58)
Age at diagnosis (years)* - mean±SD	53.3±12.7
Sex - n (%)	
Female	54 (93.1)
Male	4 (6.9)
Race/ethnicity - n(%)	
White european	52 (89.7)
White hispanic	2 (3.4)
Classification Criteria ACR/EULAR 2013 - n(%)	52 (89.7)
Disease subtype - n(%)	
Limited cutaneous scleroderma	37 (63.8)
Overlap syndrome**	9 (15.5)
Sjogren's disease	3 (5.2)
Systemic lupus eruthematous	4 (6.9)
Rheumatoid arthiritis	2 (3.4)
Inflammatory myopathy	1 (1.7)
Sinescleroderma	4 (6.9)
VEDOSS	6 (10.3)
Diffuse scleroderma	2 (3.4)
Antinuclear antibodies - n(%)	56 (96.6)
SSc related antibodies - n(%)	
Anticentromere	34 (58.6)
CENP-A*	23 (46.0)
CENP-B*	27 (54.0)
Anti-Scl70	12 (20.7)
Anti-RNA polymerase III	2 (3.4)
Anti-SSA*	9 (15.5)
Anti-Ro52*	8 (14.3)
Anti-PM/Scl*	4 (8.0)
Anti-Th/To*	2 (4.0)
Anti-Ku*	2 (4.0)
Anti-U1-RNP*	1 (1.7)
Anti-U3-RNP*	0 (0.0)
Anti-U11/U12-RNP*	0 (0.0)
Anti-SSB*	0 (0.0)
Alcohol consumption - n(%)*	
Absent or sporadic	40 (68.9)
Regular consumption	4 (9.1)
Tobacco use - n(%)*	
Current smoker	4 (9.5)
Former smoker	6 (14.3)
Non-smoker	32 (76.2)
Esophageal/gastric symptoms - n(%)	38 (65.5)
At diagnosis	17 (32.1)
Dysphagia	26 (44.8)
Heartburn	14 (24.1)
Early satiety	5 (8.6)
Reflux	5 (8.6)
Vomiting	1 (1.5)
Disease duration (months) until manometry** - median (IQR)	30 (73.3)
Manometry reports - n (%)***	
Normal	29 (50.0)
IEM	10 (17.2)
AC	8 (13.8)
EGJ outflow obstruction	4 (6.9)
Hypercontractile esophagus	4 (6.9)
Inconclusive	2 (3.4)
Type I Achalasia	1 (1.7)

Footnote: AC - absent contractility; ACR - American College of Rheumatology; EGJ - esophagogastric junction; IEM - ineffective esophageal motility; IQR - Interquartile Range; SD - Standard deviation; SSc - Systemic sclerosis; VEDOSS - Very Early Diagnosis of Systemic Sclerosis. **Missing valu es: 1 for medications, 14 for tobacco use and alcohol consumption; 8 for CENP-A, CENP-B, Anti-PM/Scl, Anti-Th/To, Anti-Ku, Anti-U3-RNP, Anti-U11/U12-RNP; 2 for anti-SSA and anti-Ro52, 3 for anti-SSB. **Considering the date of diafgnosis. ***2 inconclusive reports due to patient intolerance.*

075 - CAN TUBERCULIN SKIN TEST BE INFLUENCED BY SKIN THICKENING IN SYSTEMIC SCLEROSIS?

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Introduction: Systemic sclerosis (SSc) is characterized by skin thickening, measured using the modified Rodnan Skin Score (mRSS). Latent tuberculosis infection (LTBI) screening is essential before starting immunosuppressive therapy and can be performed using the tuberculin skin test (TST) or the interferon-gamma release assay (IGRA). The TST is a simple and sensitive tool consisting of an intradermal injection of 0.1mL of purified protein derivate into the forearm. The result is read after 48 to 72h. Although ≥10mm is the general cut-off, alternatives have been proposed ranging from ≥5 to ≥15mm. We aim to evaluate the possible link between skin thickening at the inoculation site and the TST result and assess if a different cut-off is needed for SSc patients.

Methods: We conducted a retrospective observational

067 – TABLE II. Comparison of manometry diagnostic outcomes using the Chicago 4.0 protocol versus diagnoses obtained in supine position only (as per Chicago 3.0 protocol) or upright position only.

Diagnosis in supine position (according to CCv3.0 criteria)*

			Normal	IEM	AC	EGJOO	DES	HE	A1	Int/	*k*	*p value*
Diagnosis using Chicago 4.0 protocol	Normal	25	23	0	0	0	0	0	0	3	**0,748**	**<0.001**
	IEM	9	2	4	1	0	0	0	0	2		
	AC	8	0	0	7	0	0	0	0	1		
	EGJOO	4	0	0	0	4	0	0	0	0		
	DES	0	0	0	0	0	0	0	0	0		
	HE	4	0	0	0	0	0	4	0	0		
	A1	0	0	0	0	0	0	0	0	0		
	Total	**51**	25	4	8	4	0	4	0	6		

Diagnosis in upright position*

			Normal	IEM	AC	EGJOO	DES	HE	A1	Int/	*k*	*p value*
Diagnosis using Chicago 4.0 protocol	Normal	26	23	2	0	0	1	0	0	0	**0,762**	**<0.001**
	IEM	9	3	6	0	0	0	0	0	0		
	AC	8	0	0	8	0	0	0	0	0		
	EGJOO	4	1	0	0	3	0	0	0	0		
	DES	0	0	0	0	0	0	0	0	0		
	HE	4	1	0	0	0	0	3	0	0		
	A1	0	0	0	0	0	0	0	0	0		
	Total	**51**	28	8	8	3	1	3	0	0		

Diagnosis in upright position*

			Normal	IEM	AC	EGJOO	DES	HE	A1	Int/	*k*	*p value*
Diagnosis in supine position (according to CCv3.0 criteria)*	Normal	25	21	3	0	0	1	0	0	0	**0,599**	**<0.001**
	IEM	4	1	3	0	0	0	0	0	0		
	AC	8	1	0	7	0	0	0	0	0		
	EGJOO	4	1	0	0	3	0	0	0	0		
	DES	0	0	0	0	0	0	0	0	0		
	HE	4	1	0	0	0	0	3	0	0		
	A1	0	0	0	0	0	0	0	0	0		
	Int/	6	3	2	1	0	0	0	0	0		
	Total	**51**	28	8	8	3	1	3	0	0		

Footnote: A1 - Type 1 achalasia; AC - absent contractility; DES - Distal esophageal spasm; EGJOO - esophagogastric junction outflow obstruction; HE - Hypercontractile esophagus; IEM - ineffective esophageal motility; Int/ - Intolerance.*7 *missing values for supine position and for upright position* .

study including all adult SSc patients from our center who had recent TST or mRSS evaluation. We considered the TST cut-off of ≥10 mm. Patients were divided into two groups based on the mRSS in the inoculation site (left forearm): LFmRSS≥1 and LFmRSS=0. Clinical characteristics and LTBI screening results were compared between the groups. Continuous variables were reported as mean±standard deviation (SD) or median±interquartile range (IQR), and categorical variables as frequencies or proportions. Comparisons were made using the chi-squared test for categorical data and the Mann-Whitney U test for continuous data, with significance set at $p < 0.05$.

Results: A total of 36 patients were included in the study, of whom 30 (83.3%) were female, with a mean age of 62.2 years (SD 10.33) and a median disease duration of 10.0 years (IQR 20.0). Most patients [25 (69.4%)] presented limited cutaneous SSc, 6 (16.7%) diffuse cutaneous SSc, 2 (5.6%) sine scleroderma, and 3 (8.3%) overlap syndromes. Thirty percent of patients were under corticosteroid therapy with median prednisolone (PDN) dose of 5.0mg/day (IQR 5.0). Seven (19.4%) patients had previously been vaccinated with the BCG. The median mRSS was 5.0 (IQR 12.0).

The LFmRSS≥1 group (8 patients, 22.2%) had a mean age of 59.9years (SD 11.5) and a median disease duration of 10.0 years (IQR 21.0). Half were female [4 (50.0%)], and the majority [5 (62.5%)] presented diffuse cutaneous SSc. Two patients (25.0%) used PDN [7.5mg/day and 10mg/day]. The median mRSS was

075 – TABLE 1. Comparative analysis between LFmRSS≥1 and LFmRSS=0 groups.

	LF mRSS ≥1 N = 8	LF mRSS =0 N =28	Total N = 36	P-value
TST, mm, Mean (SD)	9.0 (10.29)	2.3 (4.54)	3.8 (6.72)	0.156
IGRA, N (%) Positive Negative	2 (33.3%) 4 (66.7%)	6 (22.2%) 21 (77.8%)	8 (24.2%) 25 (75.8%)	0.616
Assumed LTBI, N(%) Yes No	4 (50.0%) 4 (50.0%)	9 (33.3%) 18 (66.7%)	13 (37.1%) 22 (62.9%)	0.433
BCG vaccination, N(%) Yes No	3 (37.5%) 5 (62.5%)	4 (14.8%) 23 (85.2%)	7 (20.0%) 28 (80.0%)	0.312
PDN,N(%) Yes No	2 (25.0%) 6 (75.0%)	9 (32.1%) 19 (67.9%)	11 (30.6%) 25 (69.4%)	1.000
PDN dose, mg/day, Median (IQR)	8.7	5.0 (3.8)	5.0 (5.0)	0.145

mRSS: modified Rodnan skin score; LF: Left Forearm; TST: Tuberculin Skin Test; IGRA: Interferon-gamma assay; LTBI: Latent Tuberculosis Infection; BCG: Bacillus Calmette-Guérin; PDN: prednisolone

22.0 (IQR 21.0).

The LFmRSS=0 group (28 patients, 77.8%) had a mean age of 62.5 years (SD 10.64) and a median disease duration of 10.0 years (IQR 19.0). Most patients were female [26 (92.9%)], and the majority [22 (78.6%)] presented limited cutaneous SSc. Nine patients (32,1%) used PDN [median dose of 5.0mg/day (IQR 3,8)]. The median mRSS was 3.50 (IQR 4.0).

No significant differences were observed between the groups for TST (p=0.156), IGRA (p=0.616), and assumed LTBI (p=0.433). BCG vaccination, use of PDN, and respective dosage also showed no differences between the groups (p=0.312; p=1.000; and p=0.145, respectively). The concordance rate between TST and IGRA was 72.2%. All patients with discrepancy belonged to the LFmRSS=0 group.

Conclusion: Our results suggest that skin thickness does not influence TST results. Treatment with PDN did not appear to influence the TST results, likely due to the low doses used in SSc to prevent complications such as scleroderma renal crisis. Most patients showed concordance between the TST and IGRA. Thus, TST can be effectively used and the ≥10mm cut-off can be applied in SSc patients for LTBI screening.

078 - AGREEMENT BETWEEN CLASSIFICATION CRITERIA IN ANTISYNTHETASE SYNDROME: A COHORT STUDY

Catarina Rua[1], Maria João Oliveira[2], Tiago Beirão[1], Catarina Silva[1], Mariana Patela[1], Patrícia Pinto[1], Sara Braga[3], Tiago Meirinhos[1], Sofia Neves[2], Flávio Costa[1]

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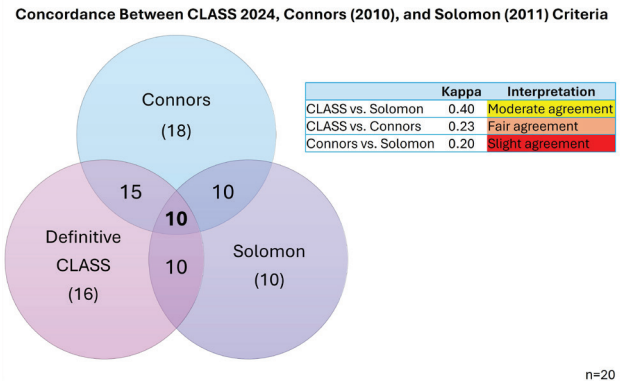
Background: Antisynthetase syndrome (ASSD) has been historically classified using variable clinical criteria, including those proposed by Connors (2010) and Solomon (2011). In 2024, the CLASS project introduced the first consensus-based and data-driven classification criteria for ASSD. This study aimed to assess the agreement between these three sets of criteria in a real-world patient cohort.

Methods: We retrospectively applied the CLASS 2024, Connors (2010), and Solomon (2011) criteria to a cohort of 20 patients with ASSD followed in the Rheumatology and/or Pneumology departments of a tertiary



078 – Figure 1. Concordance Between CLASS 2024, Connors (2010), and Solomon (2011) Criteria

care centre between 2015 and the present. Only patients classified as "definitive" by CLASS were considered as fulfilling the classification for comparison purposes. Concordance between criteria was analysed using Cohen's kappa coefficient. Overlap between systems was visualised using Venn diagrams.

Results: All patients fulfilled the 2024 CLASS classification criteria: 20% (n=4) as probable and 80% (n=16) as definite. Ninety percent of patients met the Connors et al. criteria, and 50% fulfilled the Solomon et al. criteria. When considering only patients classified as "definitive" by CLASS (n=16), agreement with Connors and Solomon criteria was partial. Cohen's kappa values indicated slight to moderate agreement: κ=0.23 for CLASS vs Connors, κ=0.40 for CLASS vs Solomon, and κ=0.20 for Connors vs Solomon. Overlap between classification systems was also represented graphically in figure 1.

Discussion/Conclusions: All patients met the CLASS criteria, but only a subset fulfilled Connors and Solomon. Agreement ranged from slight to moderate, with kappa values between 0.20 and 0.40. These differences reflect variations in the structure and thresholds of the classification systems. The CLASS criteria use a point-based approach with weighted clinical and serological domains, while Connors and Solomon follow more binary and selective frameworks. This study has several limitations. Although developed through international consensus, the CLASS criteria are recent and not yet fully validated in external cohorts. The small sample size also limits the strength of the **Conclusion**s and the ability to compare results across different clinical settings. Larger, multicentric studies are needed to confirm these findings and further evaluate the performance of each classification system in ASSD.

079 - ANTI-SYNTHETASE SYNDROME: EXPERIENCE FROM A TERTIARY CENTER

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Background: Anti-synthetase syndrome (ASSD) is a rare and heterogeneous autoimmune myopathy, characterized by a distinct set of clinical and serological features.

Methods: We conducted a retrospective study to describe the clinical profile and outcomes of ASSD patients, with particular focus on interstitial lung disease (ILD), including those followed in Rheumatology and Pulmonology between 2015 and the present.

Results: Most patients were female (65%, n=13), with a median age at diagnosis of 63 years (range 45–82) and a median diagnostic delay of 11.1 months (range 1.4–242.1). Ninety percent met the Connors et al. (2010) criteria, and 50% fulfilled the Solomon et al. (2011) criteria. All patients met the 2024 CLASS classification: 20% (n=4) as probable and 80% (n=16) as definite. Initial presentation was pulmonary in 50% (n=10), articular in 40% (n=8), and muscular in 10% (n=2). Only 2 patients (10%) had the full triad of ILD, myositis, and arthritis. The most common features were ILD (90%, n=18), inflammatory arthralgias (65%, n=13), arthritis (40%, n=8), mechanic's hands (35%, n=7), Raynaud's phenomenon (35%, n=7), clinical myositis (20%, n=4), and dysphagia (20%, n=4). In 25% (n=5), ILD was the sole manifestation. Elevated aldolase and creatine kinase were found in 6 (30%) and 2 (10%) patients, respectively. Electromyography was performed in 3 patients (15%), with myopathic findings in 2. One had muscle MRI compatible with inflammatory myopathy; another underwent biopsy without evidence of inflammation. Three patients (15%) had overlapping connective tissue diseases: systemic lupus erythematosus, systemic sclerosis, and Sjögren's syndrome. Anti-Jo1 was the most frequent antibody (75%, n=15), followed by anti-PL7 (20%, n=4), anti-PL12 (5%, n=1), and anti-OJ (5%, n=1). Anti-Ro52/SSa antibodies were present in 55% (n=11), mostly with anti-Jo1. Pulmonary hypertension was identified in 2 patients. Cancer history (ovary, breast, bladder, gastric) was reported in 4 (20%). Corticosteroids were used in 65% (n=13). Other immunosuppressives included mycophenolate (40%, n=8), azathioprine (25%, n=5), cyclophosphamide (20%, n=4), rituximab (15%, n=3), tacrolimus (n=1), and IVIG (n=1). Antifibrotics were prescribed in 4 patients: nintedanib (n=3) and pirfenidone (n=1). With a median follow-up of 5.83 years (range 0.2–13.1), mortality was 20% (n=4), all due to respiratory infec-

tions. Among 18 patients with ILD, one (5.6%) had a UIP pattern, one (5.6%) had RB-ILD, and sixteen (88.9%) had NSIP. One patient underwent lung transplantation. Pulmonary function decline (ATS/ERS criteria) occurred in 16.7% (n=3) for FVC and 22.2% (n=4) for DLCO. HRCT progression was observed in 27.7% (n=5), generally aligned with functional worsening. ILD progression occurred in 2 of 13 Jo1+ (15.4%) and 2 of 4 non-Jo1+ patients (50%).

Discussion/Conclusions: This study confirms the predominance of ILD and anti-Jo1 antibodies in ASSD. It describes ILD progression using ATS/ERS criteria and reports antifibrotic use in selected cases. The high frequency of pulmonary involvement at onset, often as the sole manifestation, underscores the importance of early respiratory evaluation. However, ILD prevalence may be overestimated due to selection bias, as pulmonology follow-up was driven by lung involvement. Despite the small sample, findings reflect the clinical variability of ASSD and reinforce the value of multidisciplinary care and further research into antibody-specific phenotypes and long-term outcomes.

095 - EFETIVIDADE DO BIOSSIMILAR DE ETANERCEPT ERELZI® EM DOENTES COM ARTRITE PSORIÁTICA: UM ESTUDO UNICÊNTRICO DE VIDA REAL

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Introdução: A artrite psoriática (APso) é uma doença reumática inflamatória crónica caracterizada por artrite, entesite e dactilite, frequentemente associada à psoríase. Os inibidores do fator de necrose tumoral alfa, como o etanercept, sob forma de ENBREL® ou dos seus biossimilares (BENEPALI® e ERELZI®) encontra-se aprovado para o seu tratamento (1,2). O objetivo deste estudo é avaliar a efetividade do ERELZI®, ao fim de seis meses, após switch de terapêutica com ENBREL® ou BENEPALI®.

Métodos: Foi realizado um estudo de coorte observacional retrospetivo que incluiu todos os doentes com APso, registados no Registo Nacional de Doentes Reumáticos (Reuma.pt), que iniciaram terapêutica biotecnológica com ENBREL® ou BENEPALI®, com posterior switch para ERELZI®. Foram considerados dois momentos: baseline (doentes sob BENEPALI® ou ENBREL®, no momento do switch para ERELZI®) e aos 6 meses (após switch). Os dados sociodemográficos, clínicos e laboratoriais foram recolhidos no Reuma.pt. A atividade da doença foi avaliada através da contagem de articulações dolorosas (AD) e tumefactas (AT); velocidade de sedimentação (VS); proteína C reativa (PCR); dor, pela escala visual analógica (EVA) pelo doente e médico; Health Assessment Questionnaire (HAQ); Functional Assessment of Chronic Illness Therapy (FACIT); Hospital Anxiety and Depression Scale (HADS); Short Form-36 (SF-36); EuroQol 5-Dimension (EQ-5D); Psoriatic Arthritis Quality of Life questionnaire (PsAQoL). A entesite foi avaliada pelo Spondyloarthritis Research Consortium of Canada (SPARCC), Leeds Enthesitis Index (LEI) e Maastricht Ankylosing Spondylitis Enthesitis Score (MASES). Foram ainda utilizados: Bath Ankylosing Spondylitis Functional Index (BASFI), Bath Ankylosing Spondylitis Disease Activity Index (BASDAI), Ankylosing Spondylitis Disease Activity Score (ASDAS), Psoriatic Ar-

095 – TABELA 1. Avaliação da atividade da doença e qualidade de vida em doentes após transição de BENEPALI® ou ENBREL® para ERELZI® aos seis meses

Variável	*Baseline (BENEPALI® ou ENBREL®)* $\bar{x} \pm DP$; $\tilde{x} \pm IQR$	*6 meses (após switch para ERELZI®)* $\bar{x} \pm DP$; $\tilde{x} \pm IQR$	*p-value*
EVA do doente	30,00 (11 – 55)	30,00 (10– 56)	0,82
EVA do médico	8,00 (3–13)	5,00 (4–15)	0,30
VS	17,48 ± 18,34	12,48 ± 12,73	0,03
PCR	3,88 ± 5,61	2,82 ± 5,85	0,17
AD	0 (0-1)	1 (0-2)	0,04
AT	0 (0-0)	0 (0-0)	0,11
HAQ	0,50 (0,25–1,00)	0,63 (0,25–1,00)	0,51
MASES	0,16 ± 0,52	0,65 ± 1,52	0,09
HADS ansiedade	8,58 ± 4,21	8,42 ± 4,78	0,42
HADS depressão	6,75 ± 4,00	7,42 ± 3,83	0,40
FACIT	35,17 ± 10,99	34,67 ± 10,17	0,97
SF-36	0,00 (0–44,04)	0,00 (0–46,03)	0,97
EQ-5d	0,55 ± 0,27	0,50 ± 0,27	0,11
SPARCC	0 (0-1)	0 (0-0)	0,38
LEI	0 (0-0)	0 (0-0)	0,74
EVA da pele	0 (0-1)	0 (0-1)	0,71
PSAQOL	6,88 ± 5,89	8,10 ± 5,07	0,27
PSAID	4,08 ± 1,98	4,04 ± 2,41	0,80
PSARCC	1 (1-1)	1 (1-1)	1,00
DAS28	1,99 ± 0,55	1,98 ± 0,70	0,89
CDAI	4,5 (2,43–7,78)	5,15 (1,68–6,50)	0,55
SDAI	5,30 ± 3,38	5,35 ± 4,08	0,30
ACR/EULAR	60,88 ± 16,24	62,87 ± 23,57	0,11

Os dados são apresentados como média ± desvio-padrão ($\bar{x} \pm DP$) ou mediana e intervalo interquartil ($\tilde{x} \pm IQR$). AD – articulações dolorosas; AT – articulações tumefactas; EVA – escala visual analógica; VS – velocidade de sedimentação; PCR – proteína C reativa; HAQ – *Health Assessment Questionnaire*; MASES – *Maastricht Ankylosing Spondylitis Enthesitis Score*; HADS – *Hospital Anxiety and Depression Scale*; FACIT – *Functional Assessment of Chronic Illness Therapy*; SF-36 – *Short Form Health Survey*; EQ-5D – *EuroQol-5 Dimensions*; SPARCC – *Spondyloarthritis Research Consortium of Canada*; LEI – *Leeds Enthesitis Index*; PSAQOL – *Psoriatic Arthritis Quality of Life*; PSAID – *Psoriatic Arthritis Impact of Disease*; PSARCC – *Psoriatic Arthritis Research Consortium of Canada*; DAS28 – *Disease Activity Score* em 28 articulações; CDAI – *Clinical Disease Activity Index*; SDAI – *Simplified Disease Activity Index*; *ACR/EULAR* resposta *American College of Rheumatology/European Alliance of Associations for Rheumatology*.

thritis Impact of Disease questionnaire (PsAID), Disease Activity Score em 28 articulações (DAS28), Clinical Disease Activity Index (CDAI), Simplified Disease Activity Index (SDAI), resposta American College of Rheumatology/European Alliance of Associations for Rheumatology (ACR/EULAR), Dactylitis Severity Score (DSS) e EVA da pele para a psoríase. Para a análise estatística, foram calculadas média e desvio padrão ou mediana e intervalo interquartil, de acordo com a distribuição dos dados. Foram aplicados testes t para amostras emparelhadas ou testes de Wilcoxon, consoante essa distribuição. Valores de p<0,05 foram considerados estatisticamente significativos.

Resultados: Foram incluídos 31 doentes com APso, sendo 64,5% do sexo masculino, com idade média de 56,8±10,6 anos. A poliartrite simétrica artrite reumatoide-like e a oligoartrite assimétrica foram os subtipos mais frequentes (41,9%, cada). Após seis meses do switch para ERELZI® (Tabela 1), constatou-se uma melhoria estatisticamente significativa da VS (p=0,03) e um aumento estatisticamente significativo do número de AD (p=0,04). Não foram observadas diferenças estatisticamente significativas nas restantes variáveis. No mesmo período, seis doentes (19,4%) realizaram switch terapêutico para um fármaco com outro mecanismo de ação: cinco (16,1%) por falência de resposta clínica e um (3,2%) por eventos adversos (cefaleias e náuseas).

Conclusão: O ERELZI® apresenta efetividade semelhante ao BENEPALI® e ENBREL®, com melhoria clínica da VS. Embora se tenha registado um aumento das AD, este apresenta relevância clínica limitada. No futuro, serão necessários estudos com maior tamanho amostral, por forma a permitir uma avaliação mais robusta da efetividade deste biossimilar.

096 - STUDY PROTOCOL: DEVELOPMENT AND VALIDATION OF A MACHINE LEARNING MODEL TO PREDICT JUVENILE IDIOPATHIC ARTHRITIS ACTIVITY USING REUMA.PT DATABASE

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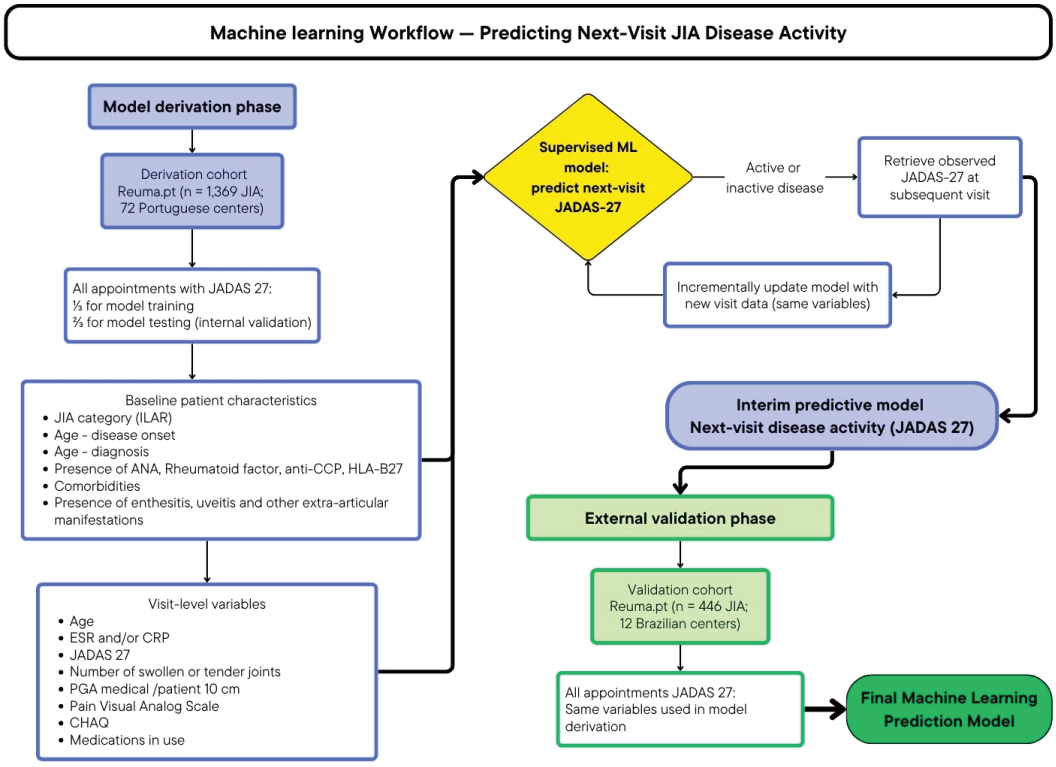
Background: Juvenile Idiopathic Arthritis (JIA) is a chronic heterogeneous inflammatory condition affecting children and adolescents. Although machine learning (ML) models have been successfully applied to predict disease activity in adult rheumatology, no equivalent models are currently available for JIA. Reuma.pt is a long-term, prospective observational registry created



096 – Figure 1. Machine learning Workflow — Predicting Next-Visit JIA Disease Activity

by the Portuguese Society of Rheumatology. It contains data from 38,806 rheumatic patients and 330,111 consultations captured since 2008 across 84 centers in Portugal and Brazil, providing an unparalleled resource for model development and analysis.

Objective: To develop and validate an ML model that predicts, in the short term (at the next visit), disease activity in patients with JIA, using collected Reuma.pt data.

Methods: An observational, retrospective cohort study will use data from Reuma.pt from 2008 to 2024. The model will be derived and internally validated using approximately 13,000 appointments from 1,369 JIA patients from 72 Portuguese centers. External validation and refinement will involve about 2,000 appointments from 446 JIA patients from 12 Brazilian centers. All appointments with sufficient information to compute Juvenile Arthritis Disease Activity Score (JADAS-27) will be included. Baseline is defined as the first appointment recorded before age 18.

Candidate predictors include demographics, ILAR subtype, medication use, inflammatory markers, previous JADAS-27, and patient-reported outcomes (CHAQ - Child Health Assessment Questionnaire).

Supervised ML algorithms, such as random forests and neural networks, will be applied to construct the predictive model, with performance assessed using metrics like sensitivity, specificity, and the area under the ROC curve.

Subgroup analyses will examine transportability across ILAR subtypes.

Expected Impact: The model is expected to support clinical decision-making by anticipating JADAS-27 categories at the next visit. The tool aims to support timely therapeutic adjustments and more personalized follow-up, demonstrating the research potential of Reuma.pt in pediatric rheumatology.

100 - IMPACT OF THE 2023 ACR/EULAR CLASSIFICATION CRITERIA ON PREGNANT WOMEN WITH PRIMARY ANTIPHOSPHOLIPID SYNDROME FOLLOWED IN A RHEUMATOLOGY–OBSTETRICS JOINT CLINIC

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Background: Antiphospholipid syndrome (APS) remains a major cause of pregnancy morbidity. The 2023 ACR/EULAR criteria introduced stricter definitions of obstetric morbidity and differential weighting of antibody isotypes and titers to improve specificity. However, concerns persist regarding reduced sensitivity for obstetric-only phenotypes and their clinical implications. We assessed the performance of the new classification criteria in a cohort of pregnant women fulfilling the 2006 Sydney criteria.

Methods: Single-center retrospective study of pregnant women with APS (Sydney criteria) followed at a tertiary multidisciplinary clinic (2009-2024). Patients with secondary APS or those lost to follow-up were excluded. Patients were reclassified using 2023 ACR/EULAR criteria, and clinical and pregnancy outcomes compared between those who met or did not meet the new criteria.

Results: Thirty pregnancies meeting the Sydney criteria were included. All women received standard antithrombotic therapy. There were 24 live births (80.0%) and 6 losses (20.0%). Two small-for-gestational-age newborns, 1 fetal growth restriction, and 1 preterm birth occurred. Twenty-one pregnancies (70%) fulfilled the 2023 ACR/EULAR criteria. Thrombotic APS cases according to Sydney classification decreased from 22 to 19, due to high-risk thrombotic profile (n=1) or isolated IgM (n=2). Likewise, obstetric APS declined from 8 to 2, due to lower weighting assigned to early pregnancy losses (n=4) and isolated IgM positivity (n=2).

Patients fulfilling the new ACR/EULAR criteria (n=21) were younger at diagnosis (23.7 ± 6.7 vs. 32.3 ± 4.6 years, p=0.002) compared to those who did not meet the criteria (n=9). In addition, these patients had longer intervals between diagnosis and conception (8.5 vs. 7.0 years, p<0.001) and from the last thrombotic event to conception (8.5 vs. 1.0 years, p<0.001), and were less often obese (BMI >30Kg/m²) (4.8% vs. 44.4%, p=0.019). Lupus anticoagulant (95.2% vs. 44.4%, p=0.005) and triple aPL positivity (42.9% vs. 0%, p=0.029) were more frequent in patients meeting the new classification criteria, suggesting a higher risk profile.

In contrast, patients who did not meet ACR/EULAR criteria had higher prevalence of IgM anticardiolipin antibodies (aCL) (55.6% vs. 14.3%, p=0.032), particularly high titer (>80 units; 44.4% vs. 9.5%, p=0.049) and IgM anti-β2 glycoprotein I antibodies (aB2GPI) (55.6% vs. 14.3%, p=0.032), particularly at low titer (<40 units; 44.4% vs. 4.8%, p=0.019). Low-titer IgG aB2GPI (<40 units) was found exclusively in pregnancies excluded from ACR/EULAR criteria.

Despite a significantly lower birth weight in neo-

100 – TABLE 1. Demographic, clinical, and serological characteristics of pregnant women with APS and comparison between women meeting or not meeting the 2023 ACR/EULAR criteria.

Demographic characteristics	Sydney Criteria (n=30)	2023 ACR/EULAR Criteria		p-value[f]
		Classified (n=21)	Not classified (n=9)	
Age at APS diagnosis (years), mean ± SD	26.3 ± 7.3	23.7 ± 6.7	32.3 ± 4.6	0.002
Age at conception (years), mean ± SD	32.3 ± 4.2	31.5 ± 4.3	34.0 ± 3.7	0.144
Time from diagnosis to conception (years), median [IQR]	5.0 [9.0]	8.5 [7.5]	7.0 [7.5]	<0.001
Time from last thrombotic event to conception (years), median [IQR]	6.0 [10.0]	1.0 [4.0]	8.5 [8.0]	<0.001
Classification, n (%)				
Thrombotic APS	22 (73.3)	19 (90.5)	3 (33.3)	0.003
Obstetric-only APS	8 (26.7)	2 (9.5)	6 (66.7)	N/A
Antiphospholipid antibody profile, n (%)				
Persistent LA	24 (80)	20 (95.2)	4 (44.4)	0.005
Anticardiolipin antibodies				
IgM positivity (total)	8 (26.7)	3 (14.3)	5 (55.6)	0.032
IgM <40	0	0	0	N/A
IgM 40-80	2 (6.7)	1 (4.8)	1 (11.1)	0.517
IgM >80	6 (20)	2 (9.5)	4 (44.4)	0.049
IgG positivity (total)	14 (46.7)	11 (52.4)	3 (33.3)	0.440
IgG <40	2 (6.7)	2 (9.5)	0	1.000
IgG 40-80	5 (16.7)	3 (14.3)	2 (22.2)	0.622
IgG >80	7 (23.3)	6 (28.6)	1 (11.1)	0.393
Combined IgG and IgM positivity	3 (10.0)	3 (14.3)	0	0.534
aB2GPI				
IgM positivity (total)	8 (26.7)	3 (14.3)	5 (55.6)	0.032
IgM <40	5 (16.7)	1 (4.8)	4 (44.4)	0.019
IgM 40-80	1 (3.3)	1 (4.8)	0	1.000
IgM >80	3 (10.0)	2 (9.5)	1 (11.1)	1.000
IgG positivity (total)	13 (43.3)	9 (42.9)	4 (44.4)	1.000
IgG <40	4 (13.3)	0	4 (44.4)	0.005
IgG 40-80	5 (16.7)	5 (23.8)	0	0.286
IgG >80	6 (20.0)	6 (28.6)	0	0.141
Combined IgG and IgM positivity	6 (20.0)	3 (14.3)	3 (33.3)	0.329
Double positivity (LA and aCL or aB2GPI)	19 (63.3)	12 (57.1)	7 (77.8)	0.419
Triple positivity (LA, aCL, and aB2GPI)	9 (30.0)	9 (42.9)	0	0.029
Cardiovascular risk factors and main comorbidities				
High blood pressure, n (%)	2 (6.7)	1 (4.8)	1 (11.1)	0.517
Obesity, n (%)	5 (16.7)	1 (4.8)	4 (44.4)	0.019
Diabetes, n (%)	0	0	0	N/A
Dyslipidemia, n (%)	4 (13.3)	3 (14.3)	1 (11.1)	1.000
Smoking, n (%)	2 (6.9)	1 (5.0)	1 (11.1)	0.532
Thyroid disease, n (%)	4 (13.3)	2 (9.5)	2 (22.2)	0.563
Gynecologic adverse condition*, n (%)	2 (6.7)	0	2 (22.2)	0.083

continues on the next page

100 – TABLE 1. Continuation

Demographic characteristics	Sydney Criteria (n=30)	2023 ACR/EULAR Criteria		p-value[f]
		Classified (n=21)	Not classified (n=9)	
APS treatments during pregnancy, n (%)				
Anticoagulation, n (%)	27 (90.0)	19 (90.5)	8 (88.9)	1.000
Prophylactic LMWH, n (%)	11 (36.7)	5 (23.8)	6 (66.7)	0.042
Therapeutic LMWH, n (%)	17 (56.7)	15 (71.4)	2 (22.2)	0.020
Warfarin**, n (%)	2 (6.7)	2 (9.5)	0	1.000
Low-dose aspirin, n (%)	30 (100.0)	21 (100.0)	9 (100.0)	N/A
Combined therapy (anticoagulant and antiplatelet), n (%)	27 (90.0)	19 (90.5)	8 (88.9)	1.000
Hydroxychloroquine, n (%)	7 (23.3)	7 (33.3)	0	0.071
Maternal and Perinatal Outcomes during follow up, n (%)				
Early pregnancy loss***, n (%)	4 (13.3)	4 (19.0)	0	0.287
Late pregnancy loss ***, n (%)	1 (3.3)	0	1 (11.1)	0.300
Stillbirth***, n (%)	0	0	0	N/A
Medical termination of pregnancy, n (%)	1 (3.3)	1 (4.8)	0	1.000
Gestational age at delivery (weeks), median [IQR]	39.0 [2.4]	39.3 [2.4]	38.6 [2.7]	0.922
Preterm births, n (%)	1 (4.2)	1 (6.3)	0	1.000
Fetal growth restriction, n (%)	1 (4.2)	1 (6.3)	0	1.000
Small for gestational age, n (%)	2 (10.0)	2 (15.4)	0	0.521
Birth weight at delivery (grams), median [IQR]	3135.0 [506]	2880.0 [498]	3355.0 [600]	0.002
Cesarean deliveries, n (%)	17 (73.9)	10 (66.7)	7 (87.5)	0.369
Gestational hypertension, n (%)	1 (3.7)	0	1 (11.1)	0.333
Gestational diabetes mellitus, n (%)	3 (11.1)	2 (11.1)	1 (11.1)	1.000
Preeclampsia, n (%)	0	0	0	N/A
Eclampsia, n (%)	0	0	0	N/A
Maternal thrombotic events during pregnancy/postpartum, n (%)	2 (6.7)	2 (9.5)	0	1.000
Occurrence of adverse pregnancy outcomes, n (%)	8 (26.7)	7 (33.3)	1 (11.1)	0.374

Legend: APS, antiphospholipid syndrome; LA, lupus anticoagulant; aCL, anticardiolipin antibodies; aB2GPI, anti-β2 glycoprotein I antibodies; IgM, Immunoglobulin M; IgG, immunoglobulin G; LMWH, low-molecular-weight heparin; N/A, not applicable. *Gynecologic adverse condition, includes gynecologic or structural conditions that may impair fertility or complicate pregnancy, such as endometriosis, uterine fibroids, uterine anomalies, or polycystic ovary syndrome. **Warfarin exposure was documented in two pregnancies where conception occurred during ongoing anticoagulation therapy, without prior preconception counselling. One pregnancy ended in spontaneous miscarriage and the other in elective termination during the first trimester. ***Early pregnancy loss: before 12 weeks+6 days of gestation; Late pregnancy loss: between 13 weeks+0 days and 19 weeks+6 days of gestation; Stillbirth: after 20 weeks of pregnancy.
[f] Data are expressed as mean ± standard deviation (SD), median [interquartile range, IQR], or number (%), as appropriate. p-values refer to comparisons between patients fulfilling and not fulfilling the 2023 ACR/EULAR criteria. Statistical tests used include independent samples t-test, Mann–Whitney U test, and Fisher's exact test, as applicable.

nates from mothers meeting the new criteria (2880g vs. 3355 g, p=0.002), the incidence of adverse pregnancy outcomes remained comparable between groups. No further differences were identified – Table 1.

Conclusion: The 2023 ACR/EULAR criteria undervalue the relevance of recurrent early pregnancy loss and isolated IgM positivity, potentially excluding women with clinically significant obstetric APS. In our cohort, pregnancy outcomes were similar regardless of classification status, suggesting that patients failing the 2023 ACR/EULAR criteria may still benefit from standard prophylactic therapy. Although the new criteria improve specificity for research purposes, reduced sensitivity may inadvertently exclude at-risk patients from both clinical care and scientific studies. Clinical judgment must remain key to the identification and management of obstetric APS.

106 - INFEÇÕES MICOBACTERIANAS EM DOENTES REUMÁTICOS SOB ANTI-TNFA: UMA SÉRIE DE CASOS CLÍNICOS

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O factor de necrose tumoral α (TNFα) é uma citocina fundamental na resposta imune contra microrganismos intracelulares, como as micobactérias, em particular, Mycobacterium tuberculosis. Tem um papel importante na ativação, recrutamento celular e aumento da atividade microbicida essencial para a manutenção de granulomas responsáveis por circunscrever a micobactéria[1]. Havendo bloqueio da ação desta citocina, há risco importante de disseminação da infeção micobacteriana.

A utilização de fármacos antagonistas do TNFα (adalimumab; certolizumab pegol; etanercept; golimumab; infliximab) é cada vez mais frequente e diversificada. São fármacos com indicações para diferentes patologias reumatismais, além de outras patologias imunomediadas (p.e.uveíte crónica não infeciosa; doença inflamatória intestinal; psoríase; hidradenite supurativa).

Portugal é ainda um país com uma prevalência importante de tuberculose latente (> 4000 casos reportados em 2023)[2].

A infeção micobacteriana acarreta risco de vida individualmente e risco populacional de disseminação de doença infetocontagiosa grave, estando recomendado o envio dos doentes que iniciarão fármacos biotecnológicos deste mecanismo ao Centro de Doença Pneumológica (CDP) antes do início do tratamento. Esta avaliação pretende a exclusão de tuberculose latente (pelo maior risco de micobacteriose agressiva). O rastreio inclui inquérito epidemiológico, pesquisa de alterações radiográficas torácicas compatível com infeção atual/ prévia por Mycobacterium tuberculosis, prova tuberculínica e IGRA.

Esta série de casos explora a apresentação clínica, dificuldade diagnóstica e desfecho dos casos de infeção micobacteriana de doentes seguidos no serviço de Reumatologia do Hospital de Braga. Estas ocorreram em doentes seguidos por Artrite Reumatoide (AR); Espondilartrite (axial e periférica) e Artrite Psoriática, com diagnósticos realizados em média 17,6 meses após o início do anti-TNFα, com destaque para 2 casos de tuberculose disseminada, 1 dos quais com evolução desfavorável com óbito. Destaca-se o caso de uma artrite sética por Mycobacterium chimaera. Registou-se ainda um caso de tuberculose disseminada – intestinal e meníngea, numa doente com AR sob rituximab, mas com história de utilização de anti-TNFα 13 anos antes.

Este trabalho mostra a necessidade do elevado índice de suspeição no diagnóstico de infeção micobacteriana - apresentações atípicas de infeção; a importância da vigilância contínua de doentes sob terapêutica biotecnológica, em particular, com anti-TNFα (mas não exclusivamente) e mesmo com rastreio negativo inicial (todos os casos tinham rastreios iniciais negativos no CDP). Isto é válido, em particular neste país, onde existe uma prevalência de tuberculose latente importante.

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107 - EFFICACY AND SAFETY OF FIRST-LINE BIOLOGIC DMARDS IN RHEUMATOID ARTHRITIS PATIENTS WITH CHRONIC KIDNEY DISEASE – A SYSTEMATIC REVIEW OF LITERATURE

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106 – TABELA 1.

Identificação	Sexo	Idade	Indicação Terapêutica	Fármaco Utilizado	Tempo até Infeção	Microrganismo Isolado	Localização da Infeção	Rastreio (CDP)	Duração Tratamento	Desfecho
(1)	Feminino	73	Artrite Reumatoide	Adalimumab	6 meses	*Mycobacterium. tuberculosis*	Disseminada (Miliar)	Negativo	6 meses	Sob tratamento
(2)	Feminino	59	Artrite Reumatoide	Adalimumab	28 meses	Mycobacterium tuberculosis	Disseminada (Miliar)	Negativo	2,5 meses	Óbito
(3)	Masculino	48	Espondilartrite periférica	Infliximab	7 meses	*Mycobacterium tuberculosis*	Tuberculose ganglionar e pulmonar	Negativo	9 meses	Resolução da tuberculose
(4)	Masculino	52	Espondilartrite axial	Adalimumab	32 meses	Mycobacterium tuberculosis	Tuberculose pulmonar	Negativo	6 meses	Resolução da tuberculose
(5)	Masculino	63	Artrite Psoriática	Infliximab	16 meses	Mycobacterium chimaera	Artrite sética	Negativo	12 meses	Resolução da infeção micobacteriológica

Background: Chronic kidney disease (CKD) affects 20–50% of rheumatoid arthritis (RA) patients, limiting conventional DMARD use and increasing adverse outcome risk.1 Biologic DMARDs (bDMARDs) offer a potential alternative, but data on their efficacy and safety remain limited.1 This review evaluated current evidence on first-line bDMARDs in RA-CKD patients.
Methods: Following PICO (P: RA+CKD; I: bDMARDs; C: placebo/none; O: efficacy, safety), a PubMed search using MeSH terms "Arthritis, Rheumatoid", "Renal Insufficiency, Chronic", and "Biological DMARDs" was conducted. The search included English articles (until April 2025), yielding 14 studies; 4 met inclusion criteria (original research, systematic reviews, meta-analyses, and RCTs).
Results: All studies were retrospective cohorts including RA patients across the full range of renal function, from normal eGFR to end-stage kidney disease. Sample sizes ranged from 70 to 8082. All studies assessed key outcomes like drug retention (DRR), adverse events (AE), disease activity, and renal function (eGFR slope, CKD incidence/progression), and included comparisons between bDMARDs, bDMARDs vs. JAK inhibitors, and bDMARDs vs. non-bDMARDs (Table I). Yoshimura et al. compared 36-month DRR among TNFi, IL-6i, and CTLA4-Ig. TNFi had higher overall discontinuation (adjusted HR 1.30; 95% CI: 1.04–1.63; p=0.02), particularly if eGFR<30 (adjusted HR 1.32; 95% CI: 1.04–1.67; p=0.02). IL-6i demonstrated significantly better DRR in severe CKD (adjusted HR 0.27; 95% CI: 0.08–0.88; p=0.03). No significant difference in DRR was observed between dialysis and non-dialysis patients (adjusted HR 1.03; 95% CI: 0.50–2.11; p=0.93). Nakayama et al. assessed 12-month DRR across bDMARDs and JAKi. IL-6i had the highest DRR in patients with normal eGFR. In eGFR<45, AE-related DRR for JAKi was lower (75.1%), compared to TNFi, IL-6i, and CTLA4-Ig (93.1%, 94.1% and 92.3%). Cox analysis confirmed a higher AE-related discontinuation risk for JAKi (HR [95% CI]: TNFi 0.23 [0.09–0.61]; IL-6Ri 0.34 [0.14–0.81]; CTLA4-Ig 0.36 [0.15–0.89]). No significant differences were found in discontinuation due to inefficacy across eGFR groups. Sumida et al. analyzed a propensity-matched cohort and found that bDMARD therapy was associated with a reduced risk of CKD progression, particularly for eGFR<45 (HR 0.71; 95% CI: 0.53–0.94). bDMARDs also decreased the odds of rapid eGFR decline (OR 0.67 for slope <–3 mL/min/1.73m²/year) and increased the likelihood of renal stability/improvement (OR 0.76). Among users, eGFR decline slowed post-treatment (–1.0 to –0.4 mL/min/1.73m²/year). Kim et al. compared annual eGFR change in RA patients treated with or without TNFi. TNFi users showed significant improvement in DAS28 (5.32 to 3.59; p<0.001) and a trend toward improved

107 – TABLE I. Summary of Included Studies on the Efficacy and Safety of First-Line bDMARDs in RA Patients with Chronic Kidney Disease

Study	Design	Population	Intervention	Outcomes	Key Findings
Yoshimura et al. (2024)	Retrospective cohort	RA patients (n=425) with eGFR ≥60, 30-60, <30 mL/min/1.73 m² (HD and non-HD)	bDMARDs (TNFi vs. IL-6i vs. CTLA4-Ig)	36-month DRR DAS28CRP, DAS28ESR PDN dose Discontinuation reasons	All bDMARDs were effective and safe across all CKD stages, including dialysis. IL-6i (especially TCZ) had highest DRR in all eGFR, lower discontinuation due to inefficacy, and remained effective as monotherapy. JAKi had the lowest DRR and were more frequently discontinued due to AE. DAS28CRP/ESR and PDN use improved across all bDMARDs and renal function levels.
Nakayama et al. (2024)	Retrospective cohort	RA patients (n=3775) with normal eGFR ≥60, CKDa 45-60, CKDb <45 mL/min/1.73 m²	bDMARDs (TNFi, IL-6i, CTLA4-Ig) vs. JAKi (TOF, BAR, UPA, FIL)	12-month DRR Discontinuation reasons	JAKi showed the lowest overall DRR and highest AE-related DRR in CKDb. IL-6i and CTLA4-Ig had higher DRR in CKDb. All DMARD classes showed similar DRR in CKDa and normal renal function.
Sumida et al. (2018)	Retrospective cohort	US veterans RA patients (n=8082) with eGFR ≥60, 45-60, <45 mL/min/1.73 m²	bDMARD (TNFi vs. IL-6i vs. CTLA4-Ig) vs. non-bDMARD	Incident CKD eGFR change CKD-free survival	bDMARD users showed: higher likelihood of stable or improved kidney function over time. slower decline in eGFR, esp. with eGFR <45. higher CKD-free survival at 4 years.
Kim et al. (2015)	Retrospective cohort	RA patients (n=70) with CKD	TNFi (ADA, ETN, IFX) vs. no previous TNFi	Annual eGFR change DAS28	TNFi group showed improved RA disease activity and slower eGFR decline.

ADA – Adalimumab; AE – Adverse Events; BAR – Baricitinib; bDMARDs – Biologic Disease-Modifying Antirheumatic Drugs; CKD – Chronic Kidney Disease; CKDa – CKD Stage 3a (eGFR 45–60 mL/min/1.73 m²); CKDb – CKD Stage 3b or worse (eGFR <45 mL/min/1.73 m²); CTLA4-Ig – Cytotoxic T-Lymphocyte Antigen 4 Immunoglobulin; DAS28 – Disease Activity Score in 28 joints; DAS28CRP – DAS28 using C-reactive protein; DAS28ESR – DAS28 using erythrocyte sedimentation rate; DMARDs – Disease-Modifying Antirheumatic Drugs; DRR – Drug Retention Rate; eGFR – Estimated Glomerular Filtration Rate; ETN – Etanercept; FIL – Filgotinib; HD – Hemodialysis; IFX – Infliximab; IL-6i – Interleukin-6 Inhibitor; JAKi – Janus Kinase Inhibitor; PDN – Prednisolone; RA – Rheumatoid Arthritis; TCZ – Tocilizumab; TNFi – Tumor Necrosis Factor Inhibitor; TOF – Tofacitinib; UPA – Upadacitinib.

eGFR over 2.9 years (50.3 to 54.5 mL/min/1.73 m²; p=0.084). Untreated patients had significant eGFR decline (52.6 to 46.5; p=0.041). Annual eGFR change differed significantly (+2.0 vs. –1.9 mL/min/1.73m²/year; p=0.006), and TNFi use was independently associated with renal preservation (p=0.019).

Discussion/Conclusion: First-line bDMARDs appear effective and safe for RA patients with CKD, including those on dialysis. IL-6i show lower discontinuation in advanced CKD, particularly when methotrexate is contraindicated. JAKi may be appropriate in moderate CKD but have reduced safety in more severe cases. In patients with preserved renal function, bDMARDs may stabilize or slow CKD progression. These findings support broader bDMARD use and call for prospective studies to confirm long-term outcomes

119 - SWITCHING BETWEEN ETANERCEPT BIOSIMILARS IN RHEUMATOID ARTHRITIS: A REAL-WORLD MONOCENTRIC STUDY

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Introduction: Etanercept (ETN) was the first TNF-α inhibitor approved in Europe for the treatment of rheumatoid arthritis (RA). Currently, two biosimilars of ETN - Benepali® and Erelzi® - are available in our center. Trial data have demonstrated differences in clinical outcomes and adverse event profiles between biosimilars and the originator bDMARD. However, to the authors knowledge, direct comparisons between the two ETN biosimilars remain scarce. This study aims to assess, using real-world data, whether switching from Benepali® to Erelzi®, introduced at ULS São João in January 2024, resulted in clinically meaningful changes in patients with RA.

Methods: We conducted a retrospective observational study including all adult patients with RA from our center, registered in Reuma.pt, who were treated with ETN between January 2024 and March 2025 (n = 66). Disease activity scores, inflammatory markers, and patient-reported outcomes (PROs) were compared between the last assessment prior to switching from Benepali® to Erelzi® and the evaluation after 6 months of Erelzi® treatment.

To assess the normality of continuous variables, the Kolmogorov-Smirnov test was used. Based on whether or not the variables followed a normal distribution, the paired samples t-test or the Wilcoxon test was applied, respectively. For categorical variables, the McNemar test was used. A p-value of < 0.05 was considered statistically significant.

Results: A total of 66 patients were included in the study, of whom 52 (78.8%) were female, with a mean age of 60.1 years (SD 10.75). Erelzi® was the only ETN biosimilar to be used in 7 patients (10.6%), while the remaining 59 (89.4%) RA patients switched from Benepali®. In the Benepali® group, the median duration of prior ETN treatment was 59.0 months (IQR 76.0), and the mean duration of Erelzi® use was 10.86 months (SD 2.14).

Regarding disease activity, no statistically significant differences were observed between baseline (month 0) and month 6 after switching to Erelzi® in the Benepali® group for DAS28-4v (p = 0.301), CDAI (p = 0.681), SDAI (p = 0.480), tender joint count (p = 0.570), swollen joint count (p = 0.827), or physician global assessment (p = 0.826). Similarly, no significant changes were found in inflammatory markers: ESR (p = 0.437) and CRP (p = 0.412).

Analysis of PRO also showed no statistically significant differences in HAQ (p = 0.097), patient global assessment (p = 0.746) or pain VAS (p = 0.372). No significant differences were observed in EULAR response (p = 0.134) or ACR response (p = 0.661).

Erelzi® was discontinued in 7 cases (11.8%) in the Benepali® group, 2 due to adverse events (extensive cutaneous rash and tachyarrhythmia, respectively), and 5 due to therapeutic failure.

Discussion: Despite initial clinical impressions, no statistically significant differences were observed in disease activity scores, inflammatory markers, or patient-reported outcomes following the switch to Erelzi®. Only two patients experienced adverse events, and five discontinued the treatment due to lack of clinical response. Based on our findings, the two ETN biosimilars appear to have comparable efficacy and safety profiles. However, further studies with larger sample sizes and longer follow-up periods are warranted to confirm these results.

126 - HISTOPATHOLOGICAL AND SEROLOGICAL INTERPLAY IN SJÖGREN'S DISEASE: THE ROLE OF COMPLEMENT DOSING

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Background: Sjögren's disease (SD) is a chronic autoimmune disorder affecting exocrine glands, leading to xerostomia and keratoconjunctivitis sicca. Diagnosis combines clinical, serological (e.g., anti-SSA/Ro, anti-SSB/La), histological, and imaging criteria. The focus score (FS) from minor salivary gland biopsy (MSGB) quantifies lymphocytic infiltration and remains a key diagnostic tool. Beyond diagnosis, FS may reflect underlying immunopathology. Complement system activation, known to drive inflammation and tissue damage in autoimmune diseases, has unclear associations with FS in SD. Exploring this link could offer insights into disease mechanisms and progression.

Objectives: To assess the relationship between minor salivary gland biopsy (MSGB) focus score and systemic markers of autoimmunity—particularly complement consumption—in patients with Sjögren's disease. Additionally, to explore the correlation between focus score and salivary gland ultrasound (SGUS) findings as a potential non-invasive alternative to histopathology.

Methods: We performed a retrospective observational study including adult patients with Sjögren's disease followed at our centre and registered in the Reuma.pt database. Demographic, clinical, salivary gland ultrasound (SGUS), and immunological data were analysed. Statistical tests included chi-squared for categorical variables and t-test or Mann-Whitney U test for continuous variables, with significance set at $p < 0.05$.

Results: A total of 89 patients were included in the study, comprising 78 women (87.6%) and 11 men (12.4%), with a mean age at diagnosis of 52 ± 14 years. Eighty-four patients (94.4%) were diagnosed with primary SD, while five patients had secondary SD (associated with rheumatoid arthritis in 2 patients [2.3%] and systemic sclerosis in 3 others [3.4%]). Clinically, 95.5% of the patients presented with xerostomia, 79.8% with keratoconjunctivitis sicca, 4.7% with parotid gland swelling, 16.5% with polyarthritis, 63.6% with polyarthralgia, 67.5% with fatigue, and 15.7% with interstitial lung involvement. The median FS was 1.10 (IQR 1.50), while the median IgG level was 121.00 mg/dL (IQR 74.75). The mean C3c and C4 levels were 122.92 ± 27.33 mg/dL and 26.43 ± 9.79 mg/dL, respectively. Although no statistically significant differences were observed in most of the analysed parameters (Table 1), including the OMERACT ultrasound score, a statistically significant association was identified between FS consistent with SS (FS ≥ 1) and complement consumption ($p = 0.044$). Specifically, patients with FS ≥ 1 exhibited significantly lower absolute levels of C3c ($p = 0.036$), while no other significant differences were observed between the groups.

Conclusion: This study highlights a significant association between minor salivary gland biopsy focus score (FS) and complement consumption, reinforcing the role of complement activation in the pathogenesis of SD. Patients with a FS consistent with SD (FS ≥ 1) ex-

126 – TABLE 1. Comparison of imaging and immunological parameters between patients with FS≥ 1 and FS<1 (n=84)

Salivary gland US*			
OMERACT ≥ 2 - n (%)	13 (27.1)	6 (25.0)	0.732
Baseline imunology			
Positive ANA* - n (%)	45 (93.7)	24 (100.0)	0.211
Positive SSA* - n (%)	33 (68.8)	19 (79.1)	0.352
Positive SSB* - n (%)	11 (22.9)	8 (33.3)	0.291
Positive Ro-52* - n (%)	21 (43.8)	11 (45.8)	0.938
Complement consumption* - n (%)	8 (16.6)	0 (0.0)	**0.044**
C3c (mg/dL) - mean ± SD	118.8 ± 29.2	134.2 ± 23.8	**0.036**
C4 (mg/dL) - mean ± SD	25.3 ± 10.9	28.5 ± 8.1	0.231

Footnote: ANA - antinuclear antibodies; FS - focus score; SSA - anti-SSA antibody; SSB - anti-SSB antibody; US - ultrasound.

**Missing values: 1 for ANA, 1 for SSB, 5 for complement consumption, 40 for OMERACT.*

hibited lower C3 and C4 levels, suggesting a link between glandular histopathology and systemic immune activation. These findings propose complement dosing as an important biomarker that may be related to the severity of exocrine gland involvement in SD. Furthermore, the study emphasizes the importance of integrating clinical, imaging, histological and serological parameters to enhance diagnostic and prognostic assessment. Further research is needed to evaluate the potential of salivary gland ultrasound as a non-invasive surrogate for biopsy findings and to refine disease monitoring strategies.

127 - NAILFOLD CAPILLAROSCOPIC FINDINGS IN EVER SMOKERS: RESULTS FROM CAPRAS

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Introduction: Nailfold capillaroscopy is a non-invasive imaging technique used to study nailfold microvasculature in Raynaud's patients. Tobacco exposure is a well-established risk factor for vascular dysfunction; yet its impact on nailfold capillaroscopic findings is understudied. Our aim is to identify nailfold capillaroscopic abnormalities associated with chronic tobacco exposure.

Methods: We performed a retrospective observational study with patients registered in the CAPillaroscopy Registry Almada-Seixal (CAPRAS), a database with nailfold capillaroscopies performed in our centre since 2014. Capillaroscopies were conducted using a digital microscope (Dino-Lite CapillaryScope 200 pro). Adult patients (≥ 18 years old) with available information regarding tobacco exposure were included. Patients with an established diagnosis of a rheumatic disease, positive anti-nuclear antibodies, and positive anti-phospholipid antibodies were excluded. Data are presented as absolute frequencies and percentages for categorical variables or medians and interquartile ranges for continuous variables. Patients were categorised as: 1) ever smokers, with current or former smoking habits and 2) never smokers, without smoking history. To compare ever smokers with never smokers, the chi-squared test or Fisher's exact test were used for categorical variables, and the Mann-Whitney test was used for contin-

127 – TABLE 1. Description of demographic and clinical characteristics of patients and nailfold capillaroscopy findings. Comparison between ever smokers and never smokers.

	All participants, n=151	Ever smokers, n=44	Never smokers, n=107	p-value
Female sex, n (%)	125 (82.8)	34 (77.3)	91 (85.0)	0.250
Caucasian, n (%)	141 (97.9)	44 (100)	97 (97)	NA
Age, years	45.4 (29)	50.1 (17)	42.3 (39)	0.096
Raynaud phenomenon, n (%)	101 (67.8)	31 (70.5)	70 (66.7)	0.652
Age of Raynaud's, years	41 (25)	43 (17)	41 (39)	0.918
Hypertension, n (%)	43 (28.5)	16 (36.4)	27 (25.2)	0.168
Hypothyroidism, n (%)	7 (28.7)	2 (4.5)	5 (4.7)	1.000
Peripheral compression syndromes, n (%)	19 (12.8)	7 (15.9)	12 (11.4)	0.454
Nailfold capillaroscopy findings, n (%)				
Haemorrhages	60 (40.3)	24 (54.5)	36 (34.3)	0.021
Dilatations (20-50 µm)	37 (24.8)	11 (25.0)	26 (24.8)	0.976
Giant capillaries (>50 µm)	3 (2.9)	0	3 (2.0)	NA
Abnormal morphology	25 (16.7)	6 (24.0)	19 (17.9)	0.521
Decreased density (<7 capillaries/mm)	19 (12.8)	4 (9.1)	15 (14.3)	0.386
Nailfold capillaroscopy pattern, n (%)				
Normal	66 (43.7)	16 (36.4)	50 (46.7)	0.243
Non-specific abnormalities	75 (49.7)	26 (59.1)	49 (45.8)	0.138
Scleroderma or scleroderma-like pattern	10 (6.6)	2 (4.5)	8 (7.5)	0.724

NA, not applicable; n, number; Statistical significance highlighted in bold (p value <0.05); Number of missing data per variable: Caucasian 3.3% (n=5); Peripheral compression syndromes 1.3% (n=2); Raynaud's phenomenon 1.3% (n=2); Nailfold capillaroscopy findings 0.6% (n=1)

uous variables. The data were analysed using IBM® SPSS® Statistics version 27.0. Reported p-values are two-tailed, and statistical significance was considered with a p-value < 0.05.

Results: 151 patients were included, 77.3% (n=34) of whom were female with a median age of 45.4 (IQR 29) years at the time of their first nailfold capillaroscopy. Of these patients, 67.8% had Raynaud's, while the other indications for capillaroscopy included acrocyanosis and erythromelalgia. From our cohort, 29.1% (n=44) were ever smokers, and 70.8% (n=107) were never smokers. Tobacco exposure was associated with the presence of haemorrhages in nailfold capillaroscopy (OR 2.3; 95% CI 1.12-4.7; p=0.021). Although there were no statistically significant differences in the overall capillaroscopic patterns, ever smokers had more non-specific abnormalities (59.1% vs 45.8% in never smokers) and never smokers had more commonly a normal pattern (46.7% vs 36.4% in ever smokers). Clinical, demographic and capillaroscopic characteristics and comparison between ever smokers and never smokers are presented in Table 1.

Conclusion: Tobacco exposure is associated with the presence of haemorrhages in nailfold capillaroscopy. This is, to our knowledge, the first study to describe this association in people without immune-mediated rheumatic diseases. There is one study addressing nailfold capillaroscopic findings in healthy smokers, which identified a higher prevalence of capillaroscopic abnormalities in smokers. The main limitations are the retrospective design and the lack of quantification of tobacco exposure. Our results suggest that chronic tobacco exposure may contribute to microvascular damage, which is detected by nailfold capillaroscopy, even in the absence of an underlying connective tissue disease.

128 - APPLYING THE ASAS DEFINITION FOR DIFFICULT TO MANAGE AND TREATMENT-REFRACTORY AXIAL SPONDYLOARTHRITIS: A SINGLE CENTRE CROSS-SECTIONAL STUDY

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Introduction: The ASAS (Assessment of SpondyloArthritis International Society) has recently proposed a consensus-based expert definition for difficult to manage (D2M) axial spondyloarthritis (axSpA) and treatment-refractory (TR) axSpA.1 Our aim is to determine the proportion of D2M and TR axSpA and describe these patients' characteristics.

Methods: We conducted an observational cross-sectional study including adult patients with axSpA, as defined by the ASAS criteria, exposed to biologic or targeted synthetic disease-modifying anti-rheumatic drugs (b/tsDMARDs). Patients included had at least one visit registered in our centre after 2017 (when different mechanisms of action (MoA) became available for prescription). Demographic and clinical data were retrieved from medical records. Baseline was defined as the start date of the first b/tsDMARD. D2M axSpA was defined according to the ASAS criteria1: 1) prior treatment with ≥2 b/tsDMARD with different MoA, 2) clinical activity (ASDAS≥2.1, C-reactive protein (CRP)>5.0mg/L, active inflammation on magnetic resonance imaging (MRI) or radiographic progression) and 3) perception by the patient/physician (patient global assessment or physician global assessment ≥ 4/10). TR patients were a subset of D2M in whom 1) the use of ≥2 b/tsDMARD was due to treatment failure and 2) had high or very high disease activity (ASDAS≥2.1) with evidence of inflammatory activity (CRP>5.0mg/L or MRI).

The proportion of D2M and TR axSpA was estimated. Descriptive analysis of the clinical and demographic characteristics and group comparisons (D2M/non-D2M) were performed. Multivariable analysis was not conducted due to the small sample size. Statistical significance was considered with a p-value < 0.05.

Results: 207 patients with axSpA were included, of whom 2.9% (n=6) met the criteria for D2M axSpA and 1.4% (n=3) for TR axSpA. Among axSpA patients, 52 (25.1%) had prior treatment with ≥2 b/tsDMARD, but only 12 (5.8%) with a different MoA. Additionally, 42.7% (n=86) and 38.3% (n=77) fulfilled the second and third criterion for D2M axSpA, respectively, but only 13.1% (n=26) met the second criterion for TR axSpA.

Patient's characteristics are described in Table 1. D2M axSpA was associated with a younger age at symptom onset and diagnosis. No further statistically significant differences were identified.

All D2M axSpA patients were HLA-B27 positive, and the majority had radiographic axSpA (n=5; 83.3%). A minority had peripheral disease (n=2; 33.3%) or extra-articular manifestations (n=16.7%). Depression (n=2; 33.3%) and anxiety (n=1; 16.7%) were more common among D2M axSpA.

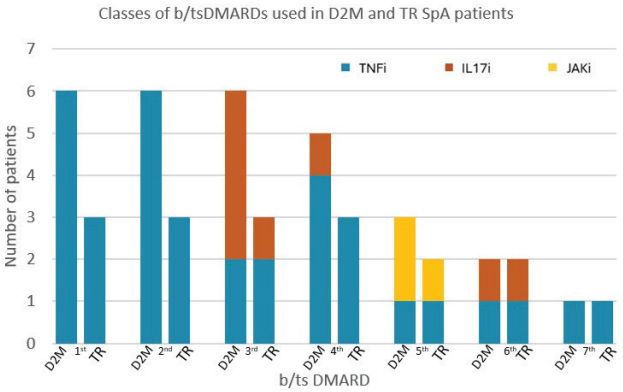
All TR axSpA patients (n=3) were HLA-B27 positive, two had radiographic axSpA, and one had peripheral disease. They had no history of fibromyalgia, depression, or anxiety.

The first-line and subsequent classes of b/tsD-

128 – TABLE 1. Clinical and demographic characteristics of patients with axSpA and TR axSpA and comparison of patients with D2M/non-D2M axSpA.

	axSpA n=207	Non-D2M axSpA, n=201	D2M axSpA, n=6	p value*	TR axSpA, n=3
Male sex, n (%)	121 (58.5)	117 (58.2)	4 (66.7)	1.000	2 (66.7)
Caucasian, n (%)	193 (93.2)	187 (96.9)	6 (100)	NA	3 (100)
Age, years	51.0 ± 13.2	51.2 ± 13.1	46.4 ± 15.2	0.386	48.8
Age at symptom onset, years	26.7 (17.0)	27.1 (16.9)	20.2 (14.1)	0.018	23.6 (17.8-26.3)
Age at diagnosis, years	31.7 (18.1)	32.0 (18.3)	25.2 (9.8)	0.012	25.6 (24.8-28.3)
Family history of axSpA, n (%)	21 (10.1)	20 (10)	1 (16.7)	0.478	0
Peripheral disease†, n (%)	81 (39.1)	53 (26.4)	2 (33.3)	0.657	1 (33.3)
Radiographic axSpA, n (%)	175 (84.5)	170 (84.6)	5 (83.3)	1.000	2 (66.7)
HLA-B27 positivity, n (%)	159 (83.7)	153 (83.2)	6 (100)	NA	3 (100)
Extra-articular manifestations (cumulative), n (%)	96 (47.8)	94 (46.8)	2 (33.3)	0.688	0
Psoriasis, n (%)	14 (6.8)	14 (7.0)	0	NA	0
Uveitis, n (%)	63 (30.4)	63 (31.3)	0	NA	0
IBD§, n (%)	15 (7.2)	14 (7.0)	1 (16.7)	0.367	0
Comorbidities					
Previous or current smoking, n (%)	95 (48)	92 (47.9)	3 (50)	2 (66.7)	
BMI (kg/m2), n (%)					
Normal weight (<25 kg/m2)	75 (36.2)	73 (40.6)	1 (33.3)	0.916	1 (33.3)
Overweight (≥25 and <30 kg/m2)	78 (37.7)	75 (41.7)	3 (50)		2 (66.7)
Obese (≥30 kg/m2)	33 (15.9)		32 (17.8)	1 (16.7)	0
Cardiovascular disease and/or risk factors‡, n (%)	81 (39.1)	78 (38.8)	3 (50)	0.681	2 (66.7)
Osteoarthritis, n (%)	33 (15.9)	31 (15.4)	2 (33.3)	0.245	1 (33.3)
Depression, n (%)	49 (23.7)	47 (23.4)	2 (33.3)	0.629	0
Anxiety, n (%)	7 (3.4)	6 (3.0)	1 (16.7)	0.189	0
Fibromyalgia, n (%)	14 (6.8)	14 (7.0)	0	NA	0
Disease activity at baseline (start date of first b/tsDMARD), median (IQR or min-max)					
ESR, mm/1st hour	32 (42)	32.0 (43)	37 (26-39)	0.956	-
CRP, mg/L	8.2 (17.9)	8 (17.9)	11 (9.4-24)	0.327	-
PtGA, 0-10	6.1 (3.0)	6.0 (4.0)	5.8 (3.0-5.9)	0.266	-
PhGA, 0-10	4.7 (1.9)	4.6 (2.0)	4.6 (4.2-4.9)	1.000	-
Back pain VAS, 0-10	6.0 (4.0)	6.4 (4.0)	5.0 (5.0-8.0)	0.903	-
ASDAS¶	3.5 (1.1)	3.5 (1.1)	4.1 (3.1-4.7)	0.331	-
BASDAI, 0-10	6.2 (2.5)	6.2 (2.5)	8.2 (4.2-8.5)	0.360	-
BASFI, 0-10	4.8 (3.9)	4.8 (4)	5.4 (3.4-7.1)	0.653	-
Current b/tsDMARD					
None, n (%)	36 (17.4)	35 (17.4)	1 (16.7)	NA	0
TNFi, n (%)	160 (77.3)	156 (77.6)	4 (66.7)	NA	3 (100)
IL-17i, n (%)	6 (2.9)	6 (3)	0	NA	0
JAKi, n (%)	4 (1.9)	3 (1.5)	1 (16.7)	NA	0
IL-23i, n (%)	1 (0.5)	1 (0.5)	0	NA	0

axSpA, axial spondyloarthritis; D2M, difficult-to-manage, TR, treatment refractory; HLA-B27, human leucocyte antigen B27; BMI, body mass index; IBD, inflammatory bowel disease; b/tsDMARD, biologic/targeted synthetic disease modifying anti-rheumatic drugs; ESR, erythrocyte sedimentation rate; CRP, C-reactive protein; PtGA, patient global assessment; PhGA, physician global assessment; VAS, visual analogue scale; ASDAS, Ankylosing Spondylitis Disease Activity Score; BASDAI, Bath Ankylosing Spondylitis Disease Activity Index; BASFI, Bath Ankylosing Spondylitis Functional Index; TNFi, tumour necrosis factor inhibitors; IL-17i, interleukin-17 inhibitors; JAKi, janus kinase inhibitors; IL-23i, interleukin-23 inhibitor; NA, not applicable; n, number; *compared with non-D2M SpA
† comprises peripheral arthritis, enthesitis and dactylitis; § comprises Crohn's disease and ulcerative colitis; ‡ comprises hypertension, dyslipidaemia, diabetes mellitus, coronary artery disease and heart failure; ¶ ASDAS: <1.3 inactive disease; ≥1.3 and <2.1 low disease activity; ≥2.1 and ≤3.5 high disease activity; >3.5 very high disease activity; Statistical significance highlighted in bold (p value <0.05)
Number of missing data per variable: age at symptom onset 0.96% (n=2); HLA-B27 8.2% (n=17); tobacco exposure 4.3% (n=9); BMI 10.1% (n=21); ESR 29.9% (n= 62); CRP 28.5% (n=59); PtGA 27.5% (n=57); PhGA 54.5% (n=113); Back pain VAS 28.7% (n=59); ASDAS 33.3% (n=69); BASDAI 25.6% (n=53); BASFI 28.5% (n=59)



128 – Figure 1. Classes of b/tsDMARDs used in D2M and TR SpA patients.

MARDs used in D2M and TR axSpA are shown in Graph 1.

Conclusion: Previous studies, using different definitions, reported higher prevalences of D2M axSpA. However, applying the ASAS definition, Smits et al identified a similar proportion of TR axSpA of 1.7%, though with a higher proportion of D2M axSpA (9.7%). The first criterion (≥2 b/tsDMARD with different MoA) limited the classification of patients as D2M or TR, which is probably related to differences in treatment access. The limitations are the ones associated with observational studies, small sample size, and inclusion of patients only with b/tsDMARD exposure. Larger nationwide studies are needed to better characterize our cohort.

131 - VACCINATION STATUS IN PATIENTS UNDERGOING BIOTECHNOLOGICAL THERAPY AT A NATIONAL RHEUMATOLOGY CENTER – AN OBSERVATIONAL STUDY

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Introduction: Due to underlying diseases, comorbidities and the use of immunosuppressants, patients with rheumatic autoimmune diseases have a higher infection burden than the general population. Among these patients, those on biological and targeted synthetic disease modifying anti-rheumatic drugs (b/tsDMARDs) are at increased risk, making preventive measures such as vaccination particularly important. However, their vaccination status (VacS) remains suboptimal.

Objective: Describe VacS of patients on b/tsDMARDs followed at a national Rheumatology center and test the association between independent variables and vaccination for seasonal influenza, Covid-19 and pneumonia.

Methods: We conducted a single-center retrospective observational study including patients registered in Reuma.pt and undergoing b/tsDMARDs during the year of 2024. Vaccination rates for influenza, Covid-19, and pneumonia were assessed overall and stratified by disease group for Psoriatic Arthritis (PsA), Spondyloarthritis (SpA), and Rheumatoid Arthritis (RA). Association between VacS and variables as sex, age, ongoing b/tsDMARD, treatment duration, disease activity (ASDAS or DAS28), education level, employment status and follow-up by a primary care physician (PCP) were tested. Data was collected from clinical and Reuma.pt records, patient's electronic health registry (RSE) and prescription records (PEM). VacS was considered up to date for Covid-19 and influenza if respective vaccination was registered during 2024 and for pneumonia if the patient had received the 13-valent pneumococcal vaccine and the 23-valent vaccine (Pn23) with an additional dose every five years, or alternatively, the 20-valent pneumococcal vaccine, or a combination of the 15-valent vaccine followed by Pn23. Statistical analysis was performed using qui-square and Mann-Whitney tests as appropriate.

Results: A total of 513 patients (female 70.0%; median age 58 years, IQR 49-68) were included - 212 with RA, 190 with SpA and 111 with PsA. About sixty percent of patients had up to date vaccination against influenza (60.4%), 45.8% against Covid-19, and 27.5% against pneumococci. Influenza ($p<0.001$) and Covid-19 ($p<0.001$) vaccinated patients were significantly older than those not vaccinated, this was not observed for pneumonia. Patients with PCP follow-up had higher odds of being vaccinated for influenza ($p=0.333$, OR=1.55) and Covid-19 ($p=0.045$, OR=1.56), an association not found for pneumococcal vaccination ($p=0.885$). Longer treatment time with b/tsDMARDs was associated with lower pneumococcal vaccination coverage ($p<0.001$) although such association was not found for influenza ($p=0.497$) or Covid-19 ($p=0.744$). When compared to unvaccinated patients, disease activity was significatively higher among the vaccinated for influenza in the SpA group ($p=0.011$) and for both influenza ($p=0.032$) and pneumonia ($p=0.006$) in the RA group. No association was identified between VacS and sex.

Conclusions: PCP follow-up and older age were associated with higher VacS for influenza and Covid-19. In contrast, longer treatment time was associated with lower pneumococcal vaccination coverage. Perception

of disease severity also seemed to influence vaccination for both influenza and pneumonia. These findings may reflect a perception of lower individual risk or a lack of vaccination check-up over time. Enhancing healthcare provider awareness and patient education is essential to improve vaccination coverage among patients with rheumatic diseases.

133 - CAPILLAROSCOPIC FEATURES IN SYSTEMIC SCLEROSIS: A COMPARATIVE STUDY OF PATIENTS POSITIVE FOR ANTI-CENTROMERE AND FOR ANTI-TOPOISOMERASE I ANTIBODIES FROM THE CAPRAS REGISTRY

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Background: Systemic sclerosis (SSc) is a heterogeneous immune mediated disease characterized by vasculopathy and fibrosis. Nailfold videocapillaroscopy (NVC) is a validated non-invasive method to assess microvascular involvement. Distinct autoantibodies, such as anti-centromere antibody (ACA) and anti-topoisomerase I antibody (ATA), are associated with different clinical phenotypes. However, their correlation with capillaroscopic patterns remains unclear.

Objectives: To compare capillaroscopic features between adult SSc patients who are positive for ACA and those positive for ATA.

Methods: We conducted a retrospective observational study using data from the CAPillaroscopy Registry Almada-Seixal (CAPRAS), which includes NVCs performed at our centre from 2014 to 2024. Adult patients (≥18 years) with a confirmed diagnosis of SSc

133 – TABLE 1. Description of demographic, clinical, and capillaroscopic characteristics of patients with systemic sclerosis. Comparison between anti-centromere and anti-topoisomerase I positive groups.

	All patients (n=87)	Anti-centromere (n=68)	Anti-topoisomerase I (n=19)	p-value
Female sex, n (%)	79 (90.8%)	63 (92.6%)	16 (84.2%)	0.280
Caucasian, n (%)	81 (93.1%)	65 (95.6%)	16 (84.2%)	0.223
Age, years (median, Q1, Q3)	53 (30–75)	62.5 (51.9–73.2)	48 (30–67)	0.032
Raynaud's phenomenon, n (%)	84 (96.6%)	66 (97.1%)	18 (94.7%)	1.000
Age of Raynaud's, years (median, Q1, Q3)	53 (36.0 – 67.0)	54.7 (42.2–72.5)	32 (22.5–54.0)	0.042
Hypertension, n (%)	24 (27.6%)	18 (26.5%)	6 (31.6%)	0.650
Hypothyroidism, n (%)	10 (11.5%)	7 (10.3%)	3 (15.8%)	0.520
Peripheral compression syndromes, n (%)	10 (11.5%)	8 (11.8%)	3 (15.8%)	0.690
Nailfold capillaroscopy findings, n (%)				
Haemorrhages	62 (71.3%)	48 (70.6%)	14 (73.7%)	0.950
Dilatations (20-50 µm)	46 (52.9%)	36 (52.9%)	10 (52.6%)	0.420
Giant capillaries (>50 µm)	31 (35.6%)	24 (35.3%)	7 (36.8%)	0.460
Abnormal morphology	28 (32.2%)	22 (32.4%)	6 (31.6%)	0.540
Decreased density (<7 capillaries/mm)	23 (26.4%)	18 (26.5%)	5 (26.3%)	0.470
Nailfold capillaroscopy pattern, n (%)				
Normal pattern	8 (9.2%)	7 (10.3%)	1 (5.3%)	0.670
Non-specific abnormalities	12 (13.8%)	10 (14.7%)	2 (10.5%)	0.620
Early scleroderma pattern	10 (11.5%)	8 (11.8%)	2 (10.5%)	0.890
Active scleroderma pattern	33 (37.9%)	26 (38.2%)	7 (36.8%)	0.910
Late scleroderma pattern	8 (9.2%)	5 (7.4%)	3 (15.8%)	0.320
Scleroderma-like pattern	5 (5.7%)	4 (5.9%)	1 (5.3%)	1.000

n, number. Statistical significance highlighted in bold (p value <0.05)

(limited, diffuse or sine scleroderma) and positive either for ACA or ATA were included. Patients with incomplete demographic or clinical data were excluded. Capillaroscopic findings were evaluated using a digital microscope (Dino-Lite CapillaryScope 200 pro). Categorical variables were compared using chi-squared or Fisher's exact test. Continuous variables were analysed using the Mann-Whitney U test ($p < 0.05$).

Results: Eighty-seven patients with SSc were included, of whom 78.2% (n=68) were ACA positive and 21.8% (n=19) were ATA positive. Compared to ATA group, ACA patients were older (median age 62.5 [IQR 51.9–73.2] vs. 48 [IQR 30-67] years; p=0.032), more frequently female (92.6% vs. 84.2%), and more often Caucasian (95.6% vs. 84.2%), though these latter differences were not statistically significant. Raynaud's phenomenon was present in 97.1% of ACA and 94.7% ATA patients.

The onset age of Raynaud's phenomenon was significantly higher in the ACA group (median 54.7 years [IQR 42.2–72.5]) compared to the ATA group (48.0 years [IQR 30.0–67.0]). The duration of Raynaud's symptoms was also longer in ACA patients (6.8 years [IQR 2.3–15.7] vs. 4.7 years [IQR 1.7–6.1]), although this difference did not reach statistical significance.

Capillaroscopic patterns were comparable between groups, with the active scleroderma pattern being the most frequent in both ACA (38.2%) and ATA (36.8%) patients. No statistically significant differences were observed in capillaroscopic findings between antibody subtypes (Table). **Discussion/Conclusion:**

In this cohort patients with ACA and ATA exhibited similar demographic, clinical, and capillaroscopic characteristics. The only statistically significant differences were that ACA positive patients were older and developed Raynaud's phenomenon later —findings consistent with previous studies suggesting a slower disease course in this group.

Although capillaroscopic abnormalities were common, there were no significant differences in microvascular findings or capillaroscopic patterns between the two groups. This suggests that the type of autoantibody may not, on its own, determine the extent of microvascular involvement in SSc. However, the timing of the first capillaroscopy relative to Raynaud onset may act as a confounder—particularly given the longer median Raynaud duration in ACA patients. This might have allowed more time for microvascular abnormalities to develop, potentially masking differences between the groups. Additionally, the small number of ATA positive patients, may have limited the statistical power to detect subtle differences

134 - IMPLEMENTAÇÃO DO FRACTURE LIAISON SERVICE NA REUMATOLOGIA: RESULTADOS PRELIMINARES NO HOSPITAL DO DIVINO ESPÍRITO SANTO

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Introdução: A osteoporose caracteriza-se pela diminuição da densidade mineral óssea e pela deterioração da microarquitetura do osso, o que aumenta o risco de fratura. No contexto de várias patologias crónicas, esta condição pode apresentar uma prevalência ainda mais elevada, impactando a morbilidade, a mortalidade e os custos em saúde.[1]

O Fracture Liaison Service (FLS) é um modelo de referência na prevenção secundária de fraturas de fragilidade, associado à redução de mortalidade.[2]

Materiais e Métodos: Foram analisados retrospetivamente os dados de 61 doentes sinalizados para consulta FLS no nosso hospital entre fevereiro de 2022 e junho de 2025. A avaliação inicia-se ainda no internamento e posteriormente em consulta presencial às 6 semanas e aos 6 meses, em conjunto com a Medicina Física e Reabilitação e Nutrição. Os dados foram recolhidos de registos hospitalares e do Reuma.pt.

Resultados: A maioria dos doentes era do sexo feminino (62%), com idade média de 72.4 (min. 54, max. 84) anos. Todos os doentes eram de etnia caucasiana, 98% provenientes da ilha de São Miguel. Relativamente à escolaridade, 87% tinham apenas o 1.º ciclo.

Entre os doentes incluídos, 68% eram não fumadores. Em 25% dos doentes ocorreram fraturas do colo de fémur dos progenitores. 34% descreveram fraturas prévias. A utilização de terapêutica hormonal de substituição foi reportada em 16% das mulheres. Fatores de risco potenciais para osteoporose foram documentados em 82% dos doentes, sendo os mais frequentes a diabetes mellitus tipo 1 ou 2 (43%), inibidores da bomba de protões (33%), furosemida (15%), antiepiléticos (11%) e alcoolismo (10%). O IMC médio foi de 25.11 kg/m2, sendo que 9% apresentavam baixo peso.

A queda por escorregamento foi a principal causa de fratura (63%). Apenas um dos doentes foi sujeito a terapêutica conservadora; os restantes foram sujeitos a cirurgia, sendo 73% operados nas primeiras 48 horas. A grande maioria dos doentes (89%) realizou fisioterapia.

As densitometrias do colo de fémur e/ou da coluna lombar revelaram osteoporose em 41% dos doentes e osteopenia em 38%. O número de consultas por doente variou entre uma e cinco.

Verificou-se défice de vitamina D (<20 ng/mL) em

66% e insuficiência (20-30 ng/mL) em 17%. Na escala HAQ, 71% apresentavam limitações funcionais moderadas ou graves. O índice EQ-5D variou entre -0.34 e 0.75, com valores negativos observados em 31% dos casos, indicando qualidade de vida muito reduzida neste grupo. Na Escala de Mobilidade de Idosos, 14% tiveram baixa mobilidade, 44% mobilidade moderada e 42% elevada.

As estratégias terapêuticas mais utilizadas foram os bifosfonatos e o denosumab, ambos associados a suplementação com cálcio e vitamina D. Durante o seguimento, 5 doentes (8.8%) tiveram novas fraturas e 4 doentes (6.6%) faleceram no primeiro ano após a fratura.

Conclusão: Verificou-se um predomínio de mulheres idosas entre os doentes, com baixo nível de escolaridade. A grande maioria apresentava fatores de risco para osteoporose e défice de vitamina D, sendo frequente a presença de osteopenia ou osteoporose na densitometria. Durante o seguimento, a taxa de novas fraturas foi relativamente baixa (8.8%), tal como a mortalidade no primeiro ano após a fratura (6.6%), mas a maioria dos doentes apresenta limitações funcionais significativas e baixa qualidade de vida, o que exige uma abordagem multidisciplinar e individualizada nesta população.

139 - RELATIONSHIP OF PSAID-12 AND DISEASE ACTIVITY MEASURES IN PORTUGUESE PATIENTS WITH PSORIATIC ARTHRITIS: A MONOCENTRIC STUDY

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Introduction: Psoriatic Arthritis (PsA) is a heterogeneous disease, with different patterns of involvement and manifestations, including arthritis, axial disease, enthesitis, dactylitis, and psoriasis, which significantly impacts patients' quality of life, assessed via patient-reported outcomes (PROs). Recently, the Psoriatic Arthritis Impact of Disease 12 domain (PsAID-12), a new PRO specifically developed for PsA, has been introduced. Despite its promising characteristics, PsAID-12 still lacks validation in some countries and few studies have evaluated the relationship between PsAID-12 and disease activity and/or improvement scores.

Objectives: To evaluate the relationship between PsAID-12 and disease activity and clinical response measures in Portuguese PsA patients, using real-world data.

Methods: We conducted a retrospective observational study, including all adult PsA patients from our center registered in Reuma.pt. Patients without PsAID-12 assessment were excluded. For patients with multiple assessments, only the most recent was considered. Patients were divided based on PsAID-12 scores: low (≤4) and high (>4). We compared the groups in terms of disease activity and improvement scores. Continuous variables were summarized as mean±SD or median±IQR, and categorical variables as frequencies. Comparisons used chi-squared, t-test, or Mann-Whitney U, with statistical significance set as p<0,05.

Results: A total of 99 patients with PsA were included. Median PsAID-12 score was 4.1 (IQR 4.05). In the PsAID-12≤4 group, there were 49 patients with a mean age of 49.30±10.718 years, 30 (61.2%) were male. In the PsAID-12>4 group, there were 50 patients with a mean age of 52.14±9.765 years, 32 (64%) were female. The median disease duration was 14.45 (IQR 8) years in the PsAID-12≤4 group and 14.23 (IQR 7,25) years in the PsAID-12>4 group. In both groups, most patients exhibited peripheral involvement [39 (79.6%) in PsAID-12≤4 and 44 (88%) in PsAID-12>4]. ESR was higher in patients with PsAID-12>4 (p=0.017). In enthesitis assessment, patients with PsAID-12>4 presented higher LEI (p=0.007), SPARCC (p<0.001), and MASES (p<0.001).

Regarding peripheral involvement, the PsAID-12>4 group showed higher TJC (p<0.001), DAPSA (p<0.001), DAS28-4V (p<0.001), CDAI (p<0.001), and SDAI (p<0.001). Patients with PsAID-12≤4 had a higher proportion of patients in remission according to DAS28-4V (p<0.001), CDAI (p<0.001), and SDAI (p<0.001). The PsAID-12≤4 group demonstrated greater improvements in ACR scores (p<0.001) and EULAR response (p=0.002).

Regarding axial involvement, the PsAID-12>4 group showed higher ASDAS-CRP (p=0.011), with no statistically significant differences in ASDAS-ESR. Scores for ASDAS and ASAS improvement showed no significant differences between groups.

The correlation between PsAID-12 total score and disease activity scores showed a strong correlation with DAPSA (r=0.747; p<0.001), DAS28-4V (r=0.619; p<0.001), and CDAI (r=0.723; p<0.001). Among patients with predominantly axial involvement, the PsAID-12 score correlated strongly with ASDAS-CRP (r=0.826; p<0.001).

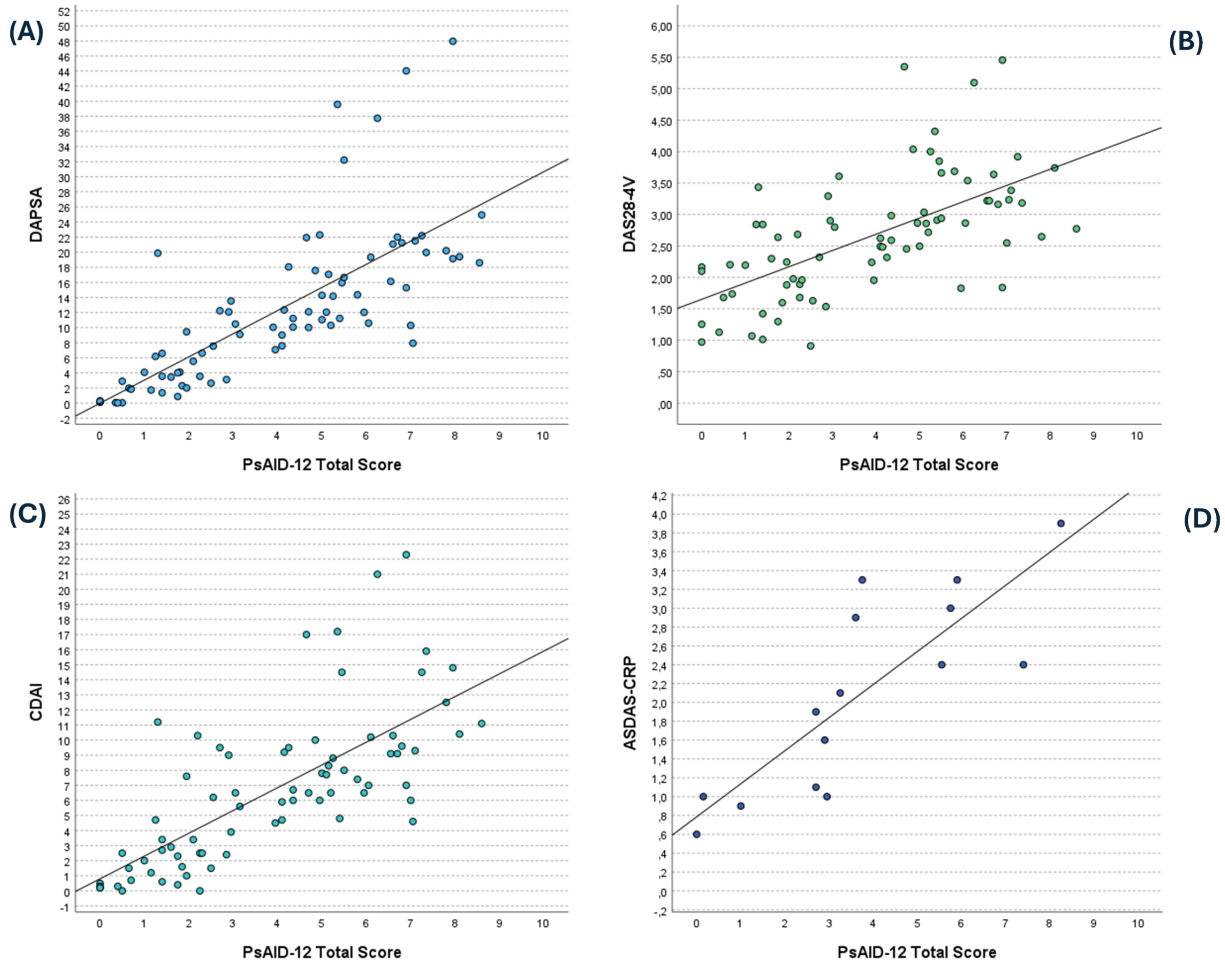
Conclusion: We observed a relationship between the PsAID-12 score and disease activity measures. The

139 – TABLE 1. Comparative analysis of disease activity indices and improvement responses between low and high PsAID-12 groups.

	PsAID-12 ≤4 N=49	PsAID-12 >4 N=50	Total N=99	*p value*
66 SJC, Median (IQR) N available	0 (0,00) N = 39	0 (1,00) N=43	0 (1,00) N = 82	*0,074*
68 TJC, Median (IQR) N available	0 (1,00) N = 39	3 (4,00) N=43	1 (4,00) N = 82	***<0,001***
DAPSA, Median (IQR) N available	3,550 (5,77) N = 37	16,855 (10,01) N= 44	10,600 (14,54) N = 81	***<0,001***
DAS28-4V, Median (IQR) N available	1,967 (1,01) N = 36	3,035 (1,07) N = 39	2,636 (1,27) N = 75	***<0,001***
CDAI, Median (IQR) N available	2,450 (4,03) N = 36	9,100 (4,60) N = 39	6,500 (7,00) N = 75	***<0,001***
SDAI, Median (IQR). N available	2,650 (4,51) N = 36	9,550 (4,37) N = 39	6,520 (7,70) N = 75	***<0,001***
ACR improvement, Median (IQR). N available	79,760 (86,05) N = 28	29,167 (48,79) N = 32	43,651 (81,55) N = 60	***<0,001***
EULAR response, N(%) No response Moderate response Good response	 12 (30,8%) 3 (7,7%) 24 (61,5%)	 15 (34,1 %) 16 (36,4%) 13 (29,5%)	 27 (32,5%) 19 (22,9%) 37 (44,6%)	***0,002***
LEI, Median (IQR) N available	0 (0,00) N =45	0 (1,00) N = 47	0 (1,00) N = 92	***0,007***
SPARCC, Median (IQR) N available	0 (0,00) N = 45	1 (2,00) N =47	0 (1,00) N = 92	***<0,001***
MASES, Median (IQR) N available	0 (0,00) N = 45	1 (3,00) N = 47	0 (2,00) N = 92	***<0,001***
ASDAS-ERS, Median (IQR) N available	1,800 (1,98) N = 10	2,900 (1,30) N = 5	2,600 (1,80) N = 15	*0,099*
ASDAS-CRP, Mean (SD) N available	1,640 (0,905) N = 10	3,000 (0,636) N = 5	2,093 (1,040) N = 15	***0,011***
ASDAS response, N(%) No response Moderate response Highly improved	 4 (44,4%) 1 (11,1%) 4 (44,4%)	 4 (80,0%) 1 (20,0%) 0 (0%)	 8 (57,1%) 2 (14,3%) 4 (28,6%)	0,211
ASAS, Median (IQR) N available	0 (57,19) N = 9	8,33 (34,37) N = 6	0 (37,50) N=15	*1,000*
PSARC response, N(%) With improvement Without improvement	 33 (73,3%) 12 (26,7%)	 34 (72,3%) 13 (27,7%)	 67 (72,8%) 25 (27,2%)	*0,915*

PsAID-12: Psoriatic Arthritis Impact of Disease – 12 domain; SJC: Swollen Joint Count; TJC: Tenderness Joint Count; DAPSA: Disease Activity Index for Psoriatic Arthritis; DAS28-4V: 28-joint Disease Activity Score with 4 variables; CDAI: Clinical Disease Activity Index; SDAI: Simple Disease Activity Index; ACR: American College of Rheumatology; EULAR: European League Against Rheumatism; LEI: Leeds Enthesitis Index; SPARCC: Spondyloarthritis Research Consortium of Canada; MASES: Maastricht Ankylosing Spondylitis Enthesitis Score; ASDAS: Ankylosing Spondylitis Disease Activity Score; ASAS: Assessment of SpondyloArthritis International Society. PSARC: Psoriatic Arthritis Response Criteria

PsAID-12 strongly correlated with disease activity indices, as higher PsAID-12 scores were linked to increased disease activity and poorer responses in the improvement scores. These findings support PsAID-12 as a reliable and valid tool for evaluating disease impact from the patient's perspective, thus highlight its potential complementary role in guiding therapeutic decisions for PsA patients.



Correlation of PsAID-12 total score with other scales	Pearson Correlation	p-value
DAPSA	0,747	***<0,001***
DAS28-4V	0,619	***<0,001***
CDAI	0,723	***<0,001***
ASDAS-CRP	0,826	***<0,001***

139 – Figure 1. Scatter plots showing the correlation between PsAID-12 total score and the (A) DAPSA, (B) DAS28-4V, (C) CDAI and (D) ASDAS-CRP.

149 - INTERSTITIAL LUNG DISEASE IN MIXED CONNECTIVE TISSUE DISEASE: A DISTINCT CLINICAL PATTERN COMPARED TO SYSTEMIC SCLEROSIS AND MYOSITIS?

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Introduction: Mixed connective tissue disease (MCTD) has overlap features with systemic sclerosis (SSc) and inflammatory idiopathic myopathies (IIM) with a proportion of patients presenting with lung involvement. However, there is few available data regarding comparison of lung involvement between each of these entities.

Objectives: We aimed to assess whether the patients with MCTD-associated interstitial lung disease (MCTD-ILD) have a higher proportion of severe/progressive lung disease during a 4-year (±12 months) follow-up period, when compared to patients with SSc-ILD and myositis-ILD.

Methods: We included patients followed at our tertiary center, diagnosed with MCTD, SSc, IIM and ILD, established through chest tomography (CT) scans with a

follow-up of 4 years (±12 months).

All patients with MCTD-ILD (n=13) were included and matched SSc and IIM were selected in a 1:1:1 ratio based on age and disease duration. ILD progression was defined as an annual ≥10% relative decline in FVC (forced vital capacity) or ≥15% relative decline in DLCO (diffusion capacity of the lungs for carbon monoxide). The proportion of patients with at least one year severe progression was compared across the 3 groups. Secondary analyses included intermediary assessments of FVC and DLCO decline at 1, 2, and 3 years, as well as mortality. Differences between groups were assessed using chi-square, Fisher's exact, Mann-Whitney or ANOVA tests as appropriate. We considered definite associations when p<0.05.

Results: 39 patients were included, with 33 (84.6%) being female. The mean age at ILD diagnosis was 47.6 ± 2.6 years and the median time for ILD diagnosis was 12 months (IQR 30). The most frequent IIM subtype was antisynthetase syndrome (n=7) followed by dermatomyositis (n=6), of which 3 were positive for anti-MDA5 and the remaining for anti-SAE, anti-EJ and anti-TIF1γ respectively. The extent of lung involvement on CT scan was not significantly different across the three groups. Most patients (n=28, 72%) exhibited a non-specific interstitial pneumonia (NSIP) pattern. However, SSc patients presented significantly more frequently with usual interstitial pneumonia (UIP) when compared to the MCTD subgroup (n=4, 30.8% in SSc vs. n=0, 0% in MCTD p<0.007) (Table 1).

During the follow-up, patients with IIM were more likely to experience a relative decline in FVC of >10% (p=0.012) with this difference being evident within the first year. No significant differences were observed other timepoints. Additionally, patients with SSc-ILD were more likely to have periods of DLCO relative decline of >15% during the first two years of follow-up. (p=0.039) (Table 2).

After 3 years (±12 months), the average relative decline in DLCO was significantly greater in SSc-ILD compared to the MCTD-ILD (average decrease of 24.7%, p<0.001). At 4 years (±12 months), the relative decline in DLCO was greater in patients with MCTD than IIM (average decrease 19.4%; p=0.036). We found no other associations when comparing average decrease of absolute/relative FVC and absolute DLCO at yearly follow-up. No deaths were recorded during the follow-up period.

149 – TABLE I. Demographics and clinical features at baseline

	All (n=39)	MCTD (n=13)	IIM (n=13)	SSc (n=13)	p value
Gender, n (%)					0.541
Female	33 (84.6)	12 (92.3)	10 (76.9)	11 (84.6)	
Male	6 (15.4)	1 (8.3)	3 (23.1)	2 (15.4)	
Age at ILD diagnosis*, mean ± SD	47.6±2.6	45.7±4.2	45.11±4.1	51.6±5.0	0.380
Time to ILD diagnosis (months)*, median (IQR)	12.0(30.0)	7.0(22.0)	2.0(51.0)	25.0(64.0)	0.308
Smoker*, n (%)					0.339
Yes	8(20.5)	1(8.0)	3(23.0)	4(30.8)	
No	22(56.4)	8(61.5)	8(61.5)	6(46.2)	
Extension of lung involvement at baseline, n (%)*					0.091
<10%	11 (28.2)	7 (53.8)	2 (15.4)	2 (15.4)	
10-20%	11 (28.2)	4 (30.8)	3 (23.1)	4 (30.8)	
>20%	16 (41.0)	2 (15.4)	7 (53.8)	7 (53.8)	
Pattern of involvement at baseline, n (%)					<0.007
NSIP	28 (72.0)	9 (69.2)	10 (76.9)	9 (69.2)	
UIP	4 (10.2)	0	0	4 (30.8)	
LIP	1 (2.6)	1 (7.8)	0	0	
OP	3 (7.7)	0	3 (23.1)	0	
BO	2 (5.1)	2 (15.4)	0	0	
IPF	1 (2.6)	1 (7.8)	0	0	
% FVC at baseline, mean ± SD	76.6±3.9	76.8±7.7	75.3±6.3	77.5±6.9	0.958
% DLCOc SB at baseline*, mean ± SD	59.0±2.8	64.1±5.8	57.4±4.3	55.8±4.6	0.748

*2 missing values for DLCO; *9 missing values for smoking habits; *1 missing value for the extension of lung involvement at baseline.
IQR – interquartile range; SD – standard deviation; NSIP – nonspecific interstitial pneumonia; UIP – usual interstitial pneumonia; LIP – lymphoid interstitial pneumonia; OP – organizing pneumonia; BO –bronchiolitis obliterans; IPF – interstitial pulmonary fibrosis.

149 – TABLE II. Proportion of patients with decreased FVC and DLCO in each subgroup at yearly follow-up

	MCTD (n)	IIM (n)	SSc (n)	p value
Relative decrease of FVC >10% at 1-year from baseline (±12months)	0	4	2	**0.012**
Relative decrease of FVC >10% at 2-years from baseline (±12months)	1	4	3	0.219
Relative decrease of FVC >10% at 3-years from baseline (±12months)	1	5	3	0.489
Relative decrease of FVC >10% at 4-years from baseline (±12months)	2	5	3	0.757
Relative decrease of FVC >10% between year 1 and 2 of follow up (±12months)	0	0	3	0.113
Relative decrease of FVC >10% between year 2 and 3 of follow up (±12months)	0	1	1	0.635
Relative decrease of FVC >10% between year 3 and 4 of follow up (±12months)	0	0	2	0.087
Absolute decrease of FVC >10% at 1-year from baseline (±12months)	0	2	1	0.162
Absolute decrease of FVC >10% at 2-years from baseline (±12months)	0	2	3	0.120
Absolute decrease of FVC >10% at 3-years from baseline (±12months)	1	4	3	0.204
Absolute decrease of FVC >10% at 4-years from baseline (±12months)	2	4	3	0.893
Absolute decrease of FVC >10% between year 1 and 2 of follow up (±12months)	0	0	2	0.249
Absolute decrease of FVC >10% between year 2 and 3 of follow up (±12months)	0	0	1	0.440
Absolute decrease of FVC >10% between year 3 and 4 of follow up (±12months)	0	0	2	0.211
Relative decrease of DLCO>15% at 1-year from baseline (±12months)	1	0	3	0.204
Relative decrease of DLCO>15% at 2-years from baseline (±12months)	1	0	5	**0.039**
Relative decrease of DLCO>15% at 3-years from baseline (±12months)	1	1	6	0.233
Relative decrease of DLCO>15% at 4-years from baseline (±12months)	1	1	6	0.233
Relative decrease of DLCO>15% between year 1 and 2 of follow up (±12months)	0	0	4	**0.039**
Relative decrease of DLCO>15% between year 2 and 3 of follow up (±12months)	1	2	1	0.681
Relative decrease of DLCO>15%between year 3 and 4 of follow up (±12months)	0	0	1	0.367
Absolute decrease of DLCO>15% at 1-year from baseline (±12months)	1	0	2	0.350
Absolute decrease of DLCO>15% at 2-years from baseline (±12months)	1	0	2	0.359
Absolute decrease of DLCO>15% at 3-years from baseline (±12months)	1	2	4	0.599
Absolute decrease of DLCO>15% at 4-years from baseline (±12months)	1	2	5	0.126
Absolute decrease of DLCO>15% between year 1 and 2 of follow up (±12months)	0	0	0	*
Absolute decrease of DLCO>15% between year 2 and 3 of follow up (±12months)	1	1	0	0.184
Absolute decrease of DLCO>15%between year 3 and 4 of follow up (±12months)	0	0	0	*

*Constant variable, no statistical analysis was performed.

Conclusion: Our results suggest that patients with MCTD-ILD may have a more favorable prognosis regarding the progression of lung disease compared to those with SSc-ILD or IIM- ILD. Patients with IIM-ILD and SSc-ILD demonstrated a more rapid decline in FVC and in DLCO particularly in the first years of follow-up. These findings highlight the clinical differences in the progression of ILD and underscore the importance of disease-specific monitoring of lung function.

154 - SAFETY AND EFFECTIVENESS OF BIOLOGIC THERAPIES IN THE TREATMENT OF SYSTEMIC LUPUS ERYTHEMATOSUS

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Background: Biologic agents have become important treatment options for patients with systemic lupus erythematosus (SLE) who fail to achieve adequate disease control with conventional therapies. Belimumab and Anifrolumab have been approved for its management. Rituximab is used off-label.
Objectives: This study aims to evaluate the use of biologic agents in SLE to better understand their prescription patterns, effectiveness and safety in a real-world setting.
Methods: A retrospective study was conducted using data from patients with SLE at Hospital Garcia de Orta who were treated with biologics between 2005 and 2024. Data were collected from the Reuma.pt database

154 – TABLE I. Demographic and clinical characteristics of participants at baseline of first biologic course.

Variables		N = 50
Female Sex	N (%)	48 (96.0%)
Age at first SLE symptoms, years	Median ± IQR (N = 41)	27.2 ± 20.8
Age at SLE Diagnosis, years	Median ± IQR	28.5 ± 20.0
Age at first biologic agent, years	Mean ± SD	40.8 ± 15.4
Disease duration at first bio agent, years	Median ± IQR (N = 41)	8.6 ± 7.4
Years since Diagnosis at first biologic agent	Median ± IQR	7.4 ± 9.8
SLEDAI at baseline	Median ± IQR (N = 46)	6 ± 9
SDI at baseline	Median ± IQR (N = 47)	0 ± 1
Smokers / Ex-smokers	N (%) (N = 48)	14 (29.2%)
Comorbidities	N (%)	
Cardiovascular risk factors		20 (40.0%)
Cardiovascular disease		12 (24.0%)
Lung disease		5 (10.0%)
Major depressive disorder		3 (6.0%)
Chronic kidney disease		1 (2.0%)
Concomitant medication at biologic treatment initiation	(N = 49)	
Hydroxychloroquine	N (%)	38 (77.6%)
Immunosuppressants	N (%)	37 (75.5%)
Corticosteroids	N (%)	45 (91.8%)
Prednisolone equivalent dose, mg/day	Median ± IQR	10.0 ± 15.0
Biologic courses per patient	N (%)	
1 course		42 (84.0%)
2 courses		7 (14.0%)
3 courses		1 (2.0%)
Biologic agents per course	N (%) (N= 59)	
Anifrolumab		2 (3.4%)
Belimumab		12 (20.3%)
Rituximab		45 (76.3%)

and clinical records. Variables were accessed at the start of biologic therapy and at the 6-month follow-up. Effectiveness was evaluated using SLEDAI score, remission, corticosteroid dose, and immunologic markers. Safety was accessed by monitoring IgG levels and the occurrence of severe infectious events. Patients could contribute with more than one treatment course to the analysis.

Results: 50 patients with SLE were included, 96% females, with a median age of 40.8 and median disease duration of 8.6 years at baseline. Two Anifrolumab, 12 Belimumab and 45 Rituximab courses were analysed. Most frequent reasons for biologic initiation were multiorgan activity (30.5%), hematologic (18.6%) and articular (13.6%) manifestations. After 6 months on therapy, median SLEDAI decrease was 3.5 (63.6%) and DORIS remission was achieved in 19.0% of evaluable cases. Median reduction in corticosteroid dose was 7 mg/day (70.0%), which were discontinued in 11.5%. Severe infections occurred in 6 (9.8%) treatment courses, mostly in patients receiving concomitant immunosuppressive therapies.

Conclusion: The population and clinical indications for biologic therapy differed slightly from those typically included in clinical trials. Biologic agents were effective in reducing disease activity with substantial reduction in corticosteroid use. The safety profile was acceptable and in line with previous studies.

Keywords: Systemic Lupus Erythematosus, Biologic Agents, Belimumab, Anifrolumab, Rituximab.

159 - FATIGUE IMPACTS THE QUALITY OF LIFE OF PATIENTS WITH MYOSITIS, REGARDLESS OF AGE, SEX, AND MUSCLE STRENGTH

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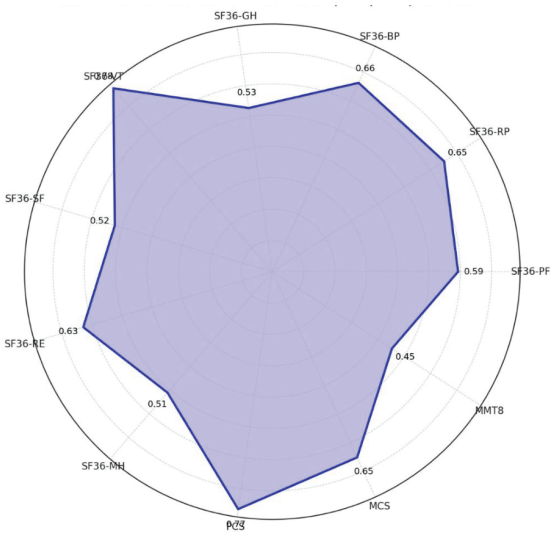
Introduction: Idiopathic inflammatory myopathies (IIM) are a group of rare systemic autoimmune rheumatic diseases characterized by muscle weakness and heterogeneous organ involvement leading to decreased quality of life (QoL). Although it is a key symptom for patients, fatigue is often overlooked in IIM clinical studies. We aimed to assess the impact of fatigue on the QoL of IIM patients.

Methods: We did a retrospective analysis of prospectively and longitudinally collected data from a single-center specialized IIM clinic. QoL was assessed using the Short Form Health Survey (SF-36), which is divided into 8 subdomains: physical functioning, role limitations due to physical health, bodily pain, general health, vitality, social functioning, role limitations due to emotional problems, and mental health. Each subdomain generates a score from 0 to 100, with higher scores indicating better health. These subdomains can be grouped into two summary scales: the physical component summary (PCS) and the mental component summary (MCS), which can be converted into T scores, standardized with a mean of 50 and a standard deviation of 10 compared to the general Portuguese population. Fatigue was assessed using the Functional Assessment of Chronic Illness Therapy – Fatigue (FACIT-F) questionnaire. Total FACIT-F scores range from 0 to 52, with a higher score indicating less fatigue. Muscle strength was evaluated using Manual Muscle Testing of a Subset of Eight Muscles (MMT8). Spearman's rank-order correlation was used to assess the associations between FACIT-F and other outcome measures. Several linear mixed models were created using the SF-36 subdomains as the dependent (outcome) variables, and the FACIT-F score, MMT8, sex, and age as independent variables. Sensitivity analyses were performed

159 – TABLE I. DEMOGRAPHIC AND CLINICAL CHARACTERISTICS OF THE INCLUDED PATIENTS.

Demographics	**Total (n=28)**
Female sex, n (%)	19 (68%)
Age in years, median (IQR)	62 (18)
Age of diagnosis, median (IQR)	55 (18)
Disease duration at first SF-36 in years, median (IQR)	8 (14)
Myositis Disease Subtype, n (%)	
Dermatomyositis	10 (36%)
Immune-mediated necrotizing myositis	7 (25%)
Polymyositis	2 (7%)
Non-specific myositis	2 (7%)
Other subtypes	7 (25%)
Myositis outcome measures, median (IQR)	
MMT-8	144.5 (20.0)
FACIT-F	33.0 (15.0)
SF-36	
Physical functioning (PF)	42.5 (30)
Role Limitations due to Physical Health (RP)	50.0 (35.9)
Bodily Pain (BP)	42.0 (21.0)
General health (GH)	35.0 (20.0)
Vitality (VT)	37.5 (50.0)
Social functioning (SF)	75.0 (87.5)
Role Limitations due to Emotional Problems (RE)	50.0 (41.8)
Mental health (MH)	61.0 (28.0)
Physical health summary score (PCS)	37.8 (15.2)
Mental health summary score (MCS)	48.4 (11.6)

Abbreviations: FACIT-F – Functional Assessment of Chronic Illness Therapy – Fatigue, IQR – interquartile range, MMT8 – Manual Muscle Testing, n – absolute frequency, SF-36 – Short Form Health Survey, % - relative frequency, in percentage.



159 – Figure 1. Correlation of FACIT-F with SF-36 subdomains, PCS, MCS, and MMT8. Radar chart illustrating the Spearman correlation coefficients between the FACIT score and various subdomains of the SF-36, as well as PCS, MCS, and MMT8. All correlations were statistically significant (p0.001). Higher values indicate stronger positive correlations, with the strongest seen in SF36-VT and PCS.
Abbreviations: BP - Bodily Pain, FACIT-F — Functional Assessment of Chronic Illness Therapy —Fatigue, GH - General health, MCS - Mental health summary score, MH - Mental health (MH), MMT8 — Manual Muscle Testing, PCS - Physical health summary score, PF - Physicalfunctioning, RE - Role Limitations due to Emotional Problems, RP - Role Limitations due to Physical Health, SF - Social functioning, SF-36 — Short Form Health Survey, VT — Vitality.

using age of onset (instead of age at the time of the evaluation) and health-assessment questionnaire (HAQ) scores (instead of MMT8) in the models.
Results: A total of 28 patients were included, 68% women, median age 62 (IQR 19) years, median 8 (IQR 14) years of disease duration at their first SF-36 assessment (Table 1). The most common diagnoses were dermatomyositis (36%) and immune-mediated necrotizing myositis (25%). Each patient had a median of 2 (IQR 2) evaluations (total of 61 assessments). The median time between assessments was 6 (IQR 3) months. Most (62%) patients had fatigue that the assisting physician interpreted as a manifestation of their disease. The median SF-36 PCS was 37.8 (IQR 15.2) and MCS 48.4 (IQR 11.6). The median FACIT-F was 33 (IQR 15). Fatigue was inversely correlated with physical ($r=0.766$, $p<0.001$) and mental ($r=0.652$, $p<0.001$) health, as well as with all SF-36 subdomains ($p\leq0.001$ for all subdomains, Figure 1). Moreover, fatigue had a statistically significant influence on both physical ($p<0.001$) and mental ($p<0.001$) health, as well as on all SF-36 domains ($p<0.001$ on all domains), irrespective of age, sex, and muscle strength. For each unit of increase in the FACIT-F score, PCS increased by 0.6 and MCS by 0.5. All sensitivity analyses were consistent with the main results regarding the relationship between fatigue and QoL.
Conclusion: Fatigue influences physical and mental QoL in IIM patients, regardless of sex, age, and muscle strength. The importance of fatigue for QoL supports the need to further characterize it, study its determinants, and include it as a relevant outcome in IIM clinical trials. The long-term goals should be to meaningfully assess fatigue and effectively address it to ensure optimal IIM patient care and QoL.

165 - PREVALENCE AND CHARACTERIZATION OF LIVER DISEASE IN SYSTEMIC SCLEROSIS: A MULTICENTRIC COHORT STUDY

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Introduction: Systemic Sclerosis (SSc) is a complex, immune-mediated connective tissue disease, characterized by vasculopathy and fibrosis of the skin and internal organs, resulting in significant morbidity and mortality. While pulmonary, cardiac, and gastrointestinal involvement are well studied, hepatic manifestations are less commonly characterized and often underrecognized. Among hepatic diseases, related autoimmune hepatic disease – such as primary biliary cholangitis (PBC) or autoimmune hepatitis (AIH) – are the most frequently reported in patients with SSc. This study aims to characterize liver disease in SSc.

Methods: Retrospective cohort study including consecutive patients fulfilling the ACR/EULAR 2013 Classification Criteria for SSc, followed at the Rheumatology Departments of Unidade Local de Saúde de Coimbra and Unidade Local de Saúde da Região de Aveiro. Clinical records, laboratory data, and imaging studies were reviewed to identify cases of liver disease. Patients with autoimmune hepatic disease (PBC and AIH) were diagnosed based on compatible autoantibody profiles and biochemical abnormalities, and either liver biopsy findings or sustained laboratory changes consistent with chronic hepatic involvement. Descriptive and statistical analysis were performed, as appropriate, and a p-value ≤ 0.05 was considered statistically significant.

Results: We included 112 patients with SSc, of whom 83.0% were female, with a mean age of 63.5 ± 12.6 years. (Table 1). Limited Cutaneous Systemic Sclerosis (lcSSc) was the predominant subset, present in 69.6% of the cohort.

Liver disease/abnormalities were identified in 23.2% of patients. Among these,10 cases were due to related autoimmune liver disease - 8 patients (7.1%) were diagnosed with PBC and 2 (1.8%) with AIH. Additionally, 8 patients exhibited abnormal liver autoantibodies (4.5%) or elevated liver enzymes without a definitive hepatic diagnosis (2.7%). Hepatic steatosis was identified in 10 patients (8.9%), 9 of whom had metabolic risk factors, such as obesity, diabetes, or hyperlipidemia. No other chronic liver diseases were detected. Regarding patients with PBC, all were female and showed biochemical evidence of cholestasis; 25% also presented concomitant cytolysis. The majority (87.5%) had lcSSc, and one patient had Systemic Sclerosis sine scleroderma. Most patients (87.5%) were anticentromere antibody positive, and one was positive for anti-RNA polymerase III. Only one patient was negative for antimitochondrial antibodies (AMA), having had the diagnosis confirmed by liver histology. The mean time from first SSc manifestation to PBC diagnosis was 10.4 ± 5.5 years, with all PBC diagnoses occurring after the onset of SSc. Cirrhosis was documented in two patients: one with PBC and one with AIH, reflecting advanced hepatic involvement in these autoimmune subgroups. When comparing patients with PBC to those without liver involvement, no statistically significant differences were found regarding age or other SSc manifestations.

159 – TABLE I. Demographic, Clinical, and Immunological Features of Systemic Sclerosis Patients

Variables	Whole cohort, n=112 (100%)
Demographic features	
Female	93.0 (83.0)
Current age, median (IQR)	63.5 ± 12.6
Age at SSc diagnosis, median (IQR)	55.0 ± 20.0
Age at autoimmune hepatic liver disease diagnosis, median (IQR)	64.0 ± 17.5
SSc-related clinical features [n (%)]	
Raynaud phenomenon	109 (97.3)
Puffy hands	32 (28.6)
Sclerodactyly	72 (64.3)
Digital ulcers	45 (40.2)
Telangiectasis	65 (58.0)
Pulmonary involvement	33 (29.5)
Gastrointestinal involvement	41 (36.6)
Cardiac involvement	14 (12.5)
Musculoskeletal involvement	9 (8.0)
Calcinosis	18 (16.1)
Sicca symptoms	13 (11.6)
Baseline capillaroscopy findings	97 (86.6)
- Early	45 (46.4)
- Active	29 (29.9)
- Late	6 (6.2)
Limited cutaneous SSc	78 (69.6)
Diffuse cutaneous SSc	23 (20.5)
SSc sine-scleroderma	6 (5.4)
Overlap syndrome	5 (4.5)

Conclusions: In our cohort, the most common liver abnormalities were steatosis, predominantly seen in patients with metabolic diseases, and autoimmune-related causes, among which primary biliary cholangitis (PBC) was the most frequent. Early recognition and a multidisciplinary team approach are essential to provide comprehensive care for these patients. Further studies with larger cohorts are needed to better understand the clinical implications of liver diseases in SSc.

168 - REAL-WORLD OUTCOMES FOLLOWING A SWITCH FROM BENEPALI® TO ERELZI® IN PATIENTS WITH AXIAL SPONDYLOARTHRITIS: A SINGLE-CENTER STUDY

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Introduction: Axial spondyloarthritis (axSpA) is a chronic inflammatory rheumatic disease that primarily affects the axial skeleton, often leading to pain, stiffness, and functional limitation. Biologic therapy, particularly TNF inhibitors (TNFi), has significantly improved outcomes in these patients. Etanercept, a TNFi approved for axSpA, is available in several biosimilar versions, including Benepali® and Erelzi®.

While biosimilars are approved based on pharmacokinetic and pharmacodynamic equivalence to the originator, real-world evidence on the interchangeability between different biosimilars of the same reference product remains limited, particularly regarding the clinical impact of non-medical switches.

Objectives: To evaluate the clinical and laboratory impact of switching from one etanercept biosimilar (Benepali®) to another (Erelzi®) in patients with axSpA in a real-world clinical setting.

Methods: We conducted a retrospective observational study using data from the national rheumatology registry (Reuma.pt) including patients with axSpA who underwent a non-medical switch from Benepali® to Erelzi® from January to December 2024. Only patients with available follow-up data 6 months after the switch were included.

For each outcome, the "before" value was defined as the arithmetic mean between the values at the time of the switch and those recorded 6 months prior; the "after" value corresponded to the 6-month post-switch visit. Paired-samples t test or Wilcoxon signed-rank test were applied as appropriate. Ordinal categorical outcomes were additionally analysed by direction of change (improved/stable/worsened).

Results: A total of 47 patients with axSpA were included, with a mean age of 53 ± 13 years; 28 (59.6%) were male. The median disease duration was 14.8 years (IQR 17.4), with a median biologic therapy duration of 6.7 years (IQR 10.3), and 6.3 years (IQR 7.4) specifically on etanercept (any biosimilar). Etanercept was the first biologic in 30 patients (63.8%) and the second one in 14 (29.8%).

168 – TABLE I. Evolution of clinical and laboratory outcomes over 6 months following a non-medical switch from Benepali® to Erelzi® in patients with axial spondyloarthritis.

VARIABLE	Before switch to Erelzi	After switch to Erelzi	Mean difference (Δ)	p value
ESR - median (IQR)	9.5 (22.3)	10.0 (22.0)	0,74	0,762
CRP - median (IQR)	2.05 (6.65)	2.90 (7.00)	-0,04	0,987
Patient Global Assessment VAS - median (IQR)	28.0 (32.0)	30.0 (45.0)	3,59	0,246
Physician Global Assessment VAS - median (IQR)	9.0 (9.5)	10.0 (8.5)	1,26	0,913
Nocturnal Spinal Pain VAS - median (IQR)	25.0 (39.5)	20.0 (49.0)	2,98	0,727
Overall Spinal Pain VAS - median (IQR)	25.0 (31.0)	20.0 (42.0)	1,73	0,876
BASFI - mean±SD	3.5±2.3	3.7±2.5	0,23	0,108
BASDAI - mean±SD	3.0±1.9	3.1±2.0	0,09	0,769
Number of entheseal points - median (IQR)	1 (2)	0 (3)	0,57	0,038
ASDAS-ESR - mean±SD	2.03±0.87	2.13±1.00	0,07	0,603
ASDAS-CRP - mean±SD	1.96±0.70	2.08±0.87	0,12	0,254
ASQoL - median (IQR)	4.5 (8.0)	4.5 (8.3)	1,78	0,042
HADS-Anxiety - median (IQR)	6.0 (6.0)	4.0 (8.0)	0,89	0,114
HADS-Depression - median (IQR)	4.5 (7.0)	3.0 (5.0)	0,76	0,314
FACIT - mean±SD	35.9±10.1	37.9±9.6	-1,98	0,048
EQ-5D - mean±SD	0.56±0.25	0.56±0.29	-0,07	0,212

IQR: Interquartile Range; SD - Standard deviation; VAS: visual analog scale; BASFI: Bath Ankylosing Spondylitis Functional Index; BASDAI: Bath Ankylosing Spondylitis Activity Index; ASDAS: Ankylosing Spondylitis Disease Activity Score; ASQoL: Ankylosing Spondylitis Quality of Life; HADS: hospital anxiety and depression scale; FACIT: Functional Assessment Chronic Illness Therapy-Fatigue; EQ-5D: EuroQol 5-Dimensions.
Green indicates clinical improvement; red indicates clinical worsening, based on the clinical interpretation of each score.
Mean difference refers to the average of paired differences (after - before). Statistical significance based on paired t test or Wilcoxon signed-rank test, as appropriate.

At 6 months after switching to Erelzi®, only three variables showed significant clinical worsening: enthesitis count (p=0.038), ASQoL (p=0.042) and FACIT (p=0.048). Despite the lack of statistical significance, a trend toward worsening was observed across all remaining outcomes, including disease activity, function, pain, quality of life, and mental health indices. The only exception was CRP, with a slight non-significant decrease. Among ordinal outcomes, 34.3% of patients showed worsening in ASAS response and 25.6% in ASDAS response after the switch, though without statistical significance.

By June 2025, a total of 15 patients (31.9%) had switched to a different biologic and were no longer receiving Erelzi®.

Conclusion: In this real-world study, the non-medical switch from Benepali® to Erelzi® in axSpA patients was associated with a subtle but consistent clinical worsening over just 6 months. Although most outcomes did not reach statistical significance, nearly all showed a trend toward deterioration, and by the time of data collection, approximately one-third of patients had already discontinued Erelzi®, suggesting limited longer-term persistence. One could hypothesize that a larger sample and a longer follow-up might have revealed more pronounced changes.

These results highlight the need for close monitoring after biosimilar-to-biosimilar switches and raise concerns about their clinical equivalence. Further studies are needed to confirm these findings and support informed switching decisions.

169 - KEY FEATURES OF PAEDIATRIC SJÖGREN'S DISEASE: A PORTUGUESE COHORT OVERVIEW

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Background: Paediatric Sjögren's disease (pSjD) is a rare autoimmune condition presenting with diverse systemic manifestations, which often lead to diagnostic delays and underrecognition. Its identification and classification are challenging due to the absence of paediatric-specific criteria, often requiring reliance on clinical expertise and adult guidelines.

Objectives: To describe the clinical and laboratory features of paediatric SjD across the disease course, highlighting the need for better recognition and earlier diagnosis in clinical practice.

Methods: We conducted a retrospective study using data from patients followed in the Paediatric Rheumatology Units of two Portuguese university hospital centres, between January 2014 and March 2025. All patients were younger than 18 years at disease onset. Data were collected from electronic medical records, including clinical history, diagnostic investigations, and disease activity scores at the last recorded visit.

Results: A total of 16 patients with pSjD were included, of whom 81.3% were female, with a mean disease onset age of 12.9 ± 3.8 years (range 3–17) and a mean disease duration of 6.2 ± 4.5 years at the last visit (mean follow-up: 4.9 ± 4.8 years). Fifteen patients (93.8%) had primary SjD, and one had SjD associated with systemic lupus erythematosus (SLE).

Recurrent parotid swelling was observed in 43.8% of patients at presentation, and 18.8% had persistent glandular enlargement. During follow-up, 81.3% reported dry mouth and 75.0% dry eyes. Other common manifestations included lymphadenopathy (68.8%), arthritis/arthralgia (43.8%), constitutional symptoms (37.5%), hematologic involvement (37.5%), and Raynaud's phenomenon (18.8%). Two patients (12.5%) had central nervous system manifestations (seizures and psychiatric symptoms).

Hypergammaglobulinemia was present in 75%, with a median IgG of 2256 mg/dl (IQR 1272). All patients were ANA-positive, 93.8% had SSA/Ro and 56% had SSB/La antibodies, and 57.1% were rheumatoid factor (RF)-positive. Hypocomplementemia (low C3) was present in 31.3% of patients.

In our cohort, 62.5% (10/16) had a positive salivary gland ultrasound (OMERACT ≥2), 42.9% (6/14) a positive salivary gland biopsy (focus score ≥1), 54.5% (6/11) had a positive Schirmer's test, and 28.6% (2/7) abnormal unstimulated sialometry.

The median ESSDAI score at the last visit was 1.0 (IQR 1.0). Most patients (75%) were being treated with hydroxychloroquine, 25% with oral corticosteroids, 18.8% with rituximab, 6.3% with methotrexate, and 6.3% with etanercept, at the time of the last visit. Only 56.3% of patients met the 2016 EULAR/ACR criteria for adult SjD.

Conclusions: In this Portuguese cohort of paediatric Sjögren's disease, sicca symptoms, parotid swelling, lymphadenopathy, and joint involvement were common, alongside high rates of hypergammaglobulinemia and positivity for ANA and SSA/Ro antibodies. Glandu-

lar and biological involvement appear to be prominent in children with SjD, with most patients achieving remission or low disease activity with systemic therapies. Our findings contribute to a better understanding of paediatric Sjögren's disease and may support future development of paediatric-specific classification criteria.

171 - REAL-WORLD MANAGEMENT OF OSTEOGENESIS IMPERFECTA IN ADULTS: A COHORT FROM A TERTIARY CENTER AND NARRATIVE LITERATURE REVIEW

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Introduction: Osteogenesis imperfecta (OI) is a heritable skeletal dysplasia caused by defective bone matrix formation, leading to increased bone fragility and fracture risk. Although bisphosphonates are widely used, there is currently no curative treatment and no therapies approved specifically for OI by the European Medicines Agency or Food and Drug Administration.
Objectives: To analyse treatment patterns in a cohort of adult patients with OI followed at our Rare Bone Diseases Clinic and to review current evidence regarding the management of these patients, particularly in terms of fracture prevention.
Methods: We conducted a retrospective analysis of adult patients with OI, focusing on demographic and clinical characteristics and treatment regimens. A narrative review of the literature was performed to contextualize our findings within the current therapeutic landscape.
Results: Thirteen adult patients were included, 54% female, with a mean age of 43 ± 12.1 years. Most were classified as having OI type I (61.5%), followed by type III (23.1%), and type IV (15.4%)

All patients had sustained fractures at multiple sites. Among those with available data, 55.5% experienced their first fracture in the first year of life.

Eight patients received bisphosphonate in adulthood—four received zoledronate, four alendronate. Three patients also received pamidronate. Excluding two patients with unavailable treatment duration data, the median duration of therapy for zoledronate/alendronate was 126 months (Interquartile range: 96). Two patients were treated with denosumab. One received teriparatide before the bisphosphonate.

Bone mineral density (BMD) data were available for 11 patients, 72.7% of whom had densitometric osteoporosis (Mean femoral neck T-score was –2.45 -standard deviation 1.53- and mean lumbar spine T-score was –2.82 -SD 1.62). Due to inconsistent data, changes in BMD due to treatment could not be evaluated.

Chronic pain was reported by 69.2% of patients. However, as no systematic or standardized assessment of pain was performed, it was not possible to draw conclusions regarding its characteristics.
Discussion and Conclusion: Management of OI in adults requires both fracture prevention and pain control. Formal guidelines for treatment initiation in adults are lacking. Pharmacological therapy should be considered in the occurrence of fractures or BMD decline without identifiable causes. Bisphosphonates remain the most commonly prescribed treatment. Reviews suggest they improve BMD, but their impact on fracture risk remains unclear. Although most patients received bisphosphonate therapy, the age of initiation was inconsistently reported. Both denosumab and teriparatide may increase BMD in adults with OI, but evidence is limited and safety concerns remain, particularly for denosumab. Additional promising therapies, including sclerostin inhibitors, show potential but raise safety concerns.

Chronic pain affected nearly 70% of our patients, emphasizing its burden. Some evidence suggests that intravenous bisphosphonate administration in children may improve pain and functional status. Although not systematically assessed in this study, pain in OI may have multiple sources beyond fractures, requiring multidisciplinary care.

Despite the small sample and heterogeneity, our findings highlight the need for collaborative data collection to inform future treatment strategies and improve care for this population. Ultimately, the goal is to enable individuals with OI to lead active, independent lives with minimal burden.

173 - OSTEOPOROSIS IN PRIMARY BILIARY CHOLANGITIS: PREVALENCE PREDICTORS IN A PORTUGUESE COHORT

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Introduction: Primary biliary cholangitis (PBC) is an autoimmune disease of the liver that leads to progressive destruction of the bile ducts and is associated with a high prevalence of osteoporosis (OP) and increased fracture risk, resulting in significant morbidity. While multiple factors appear to influence bone health in these patients, comprehensive data in Portuguese populations is lacking.

Objectives: To study the prevalence of OP in a cohort of Portuguese patients with PBC and their characteristics and identify associated factors and predictors of its occurrence.
Methods: Retrospective observational study including PBC patients followed at a tertiary hospital with at least one DEXA scan performed. Clinical, demographic and laboratory variables collected at the time of DEXA scan were analysed. OP was assessed as a dichotomous variable (with vs. without OP) through bivariate analyses and multivariate logistic regression. The analysis was then repeated for femoral neck (FN) and lumbar spine (LS) bone mineral density (BMD) values, with bivariate analyses (including correlations) and multiple linear regressions to explore bone disease as a continuous variable. Statistical significance was defined as $p<0.05$.
Results: 65 patients were included, mean age 58±1.6 years, of whom 59 (90.8%) were women, 39 (72.2%) postmenopausal. 30 patients (46.2%) had OP, of whom 6 (20.0%) were referred to Rheumatology, and 10 (15.4%) had previous fragility fracture. 12 patients (20.3%) were supplemented with vitamin D.

OP was significantly more frequent in menopausal women and those with previous fracture, also being associated with older age, longer PBC disease duration and lower platelet count. The multivariate model with age, PBC duration and platelets was statistically significant ($p=0.003$) and explains 26% of outcome variation. Only PBC duration was an independent predictor of OP, associated with increased probability of having OP ($p=0.043$, OR=1.11).

Significantly lower LS BMD values were observed in menopausal women and those with previous fracture, and were associated with older age, longer PBC duration and lower albumin levels. The multivariate model with age, previous fracture and albumin was statistically significant ($p<0.001$) and explains 24% of LS BMD variation. Only previous fracture was an independent predictor, associated with lower LS BMD values ($\beta=-0.35$, $p=0.005$).

Significantly lower FN BMD values were associated with menopause, previous fracture, splenomegaly and cirrhosis, as well as older age, longer PBC duration, lower platelet count, lower albumin and lower BMI. The multivariate model, which included age, previous fracture, cirrhosis and BMI, was statistically significant ($p<0.001$) and explains 33% of FN BMD variation. Age and presence of cirrhosis remained independent predictors, both associated with lower FN BMD values ($\beta=-0.28$, $p=0.029$ and $\beta=-0.32$, $p=0.013$, respectively).
Conclusion: This is, to the best of our knowledge, the first study exploring OP in PBC patients in a Portuguese cohort. A high prevalence of OP was found in this sample, with age and PBC disease duration consistently emerging as associated factors with OP presence and lower BMD. Additionally, variables potentially related to more advanced liver disease - such as cirrhosis, platelets and albumin - also showed association with worse bone health. These results emphasize the importance of targeted bone health surveillance in this population (particularly with more severe disease), with early assessment, adequate supplementation and timely OP treatment.

176 - SURVIVAL AFTER TERIPARATIDE: THE COST OF TREATMENT GAPS

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Background: Osteoporosis is a chronic skeletal disorder characterized by decreased bone strength and an increased risk of fragility fractures, which are independently associated with elevated mortality — especially among the elderly. Teriparatide, an anabolic agent used for severe osteoporosis, has demonstrated efficacy in reducing fracture risk. However, discontinuation of Teriparatide without subsequent antiresorptive therapy can lead to rapid loss of bone gains. In clinical practice, adherence to post-anabolic treatment and long-term outcomes vary widely. Identifying factors linked to mortality after Teriparatide treatment support the development of strategies to improve long-term care and survival in this high-risk population.
Objective: To identify clinical factors associated with mortality in osteoporotic patients treated with Teriparatide at the Rheumatology department of ULS São João.
Methods: Retrospective cohort study including 165 patients treated with Teriparatide between 2011 and 2022, all with at least 24 months of follow-up after completing the treatment. Variables assessed included sex, age, BMI, smoking habits, bone mineral density (BMD) at baseline, prior fragility fractures, causes of secondary osteoporosis, whether antiresorptive therapy was initiated after Teriparatide and, if so, which agent. Univariate comparisons were performed, and binary logistic regression was used to assess independent associations with mortality.
Results: A total of 19 deaths (11.5%) were recorded during follow-up. Absence of post-Teriparatide antiresorptive therapy was observed more frequently in patients who died during the follow-up period. (41.7% vs. 11.3%, $p = 0.006$). There were no significant differenc-

es in sex, age, BMI, smoking, prior fractures, or baseline T-Score < 3.5 at lumbar vertebrae, total femur or femoral neck (table 1). Logistic regression showed that absence of post-treatment was associated with a five-fold increased risk of death (OR 5.62; 95% CI 1.58–19.95; p = 0.008) during follow-up. Since the confidence interval does not include 1, this association is statistically significant and clinically relevant. Although the wide confidence interval [1.582–19.952] reflects uncertainty in magnitude, it still indicates a consistent increased risk. This may suggest that patients who were not treated with an antiresorptive following teriparatide might have been more fragile, had less medical oversight, and/or presented a worse overall prognosis.

Conclusion: Lack of antiresorptive therapy following Teriparatide was associated with a significantly increased risk of mortality during follow-up. These find-

176 – Table I. Comparison of Baseline Clinical Characteristics Between Deceased and Surviving Patients During Follow-up

	Deceased n=19	Alive n=146	p-value
Female n (%)	15 (78.9%)	127 (86.9%)	0.341
Age (y) median ± IQR	69.0 ± 13	64.0 ± 13	0.208
BMI median ± IQR	24.7 ± 8.7	25.2 ± 6.0	0.916
Smoking habits			
n available	13	113	
Non, n/N (%)	12 (92.3%)	91 (80.5%)	0.374
Past, n/N (%)	1 (7.7%)	7 (6.2%)	
Current, n/N (%)	0	15 (13.3%)	
Following Antiresorptive			
n available	12	133	
Alendronate	0	20 (15,1%)	
Ibandronate	0	1 (0,7%)	
Risedronate	0	1 (0,7%)	0.006
Zoledronate	3 (25,0%)	52 (39,1%)	
Pamidronate	0	2 (1,5%)	
Denosumab	4 (33,3%)	42 (31,6%)	
Non	5 (41,7%)	15 (11,3%)	
Causes of Secondary OP			
Total (%)	15 (78.9%)	95 (65.1%)	
Rheumatoid Arthritis	4 (26.6%)	33 (25,4%)	0.879
Alcoholism	0	2 (1,5%)	0.608
Gastric Bypass	1 (6.7%)	2 (1,5%)	0.232
Corticotherapy	12 (80.0%)	116 (79,4%)	0.605
IBD	0	13 (10,0%)	0.175
COPD	4 (26.6%)	4 (3,1%)	0.090
Hemochromatosis	1 (6.7%)	0	0.505
Hyperparathyroidism	0	2 (1,5%)	0.608
Hypogonadism	1 (6.7%)	3 (2,3%)	0.392
Leukaemia/Lymphoma	0	1 (0,8%)	0.717
Early Menopause	1 (6.7%)	12 (9,2%)	0.653
Parkinson	0	3 (2,3%)	0.528
Cushing 's Disease	0	2 (1,5%)	0.608
Turner's Syndrome	0	1 (0,8%)	0.717
HRT	0	2 (1,5%)	0.608
Thyrotoxicosis	0	2 (1,5%)	0.608
Previous Fractures	16 (84,2%)	118 (80,8%)	0.936
Femoral neck	5 (31,2%)	19 (16,1%)	0.268
Vertebral	12 (75,0%)	94 (79,7%)	0.762
Colles	2 (12,5%)	19 (16,1%)	0.768
Bone Mineral Density			
Vertebral median ± IQR	0.789 ± 0.243	0.768 ± 0.196	0.727
n available	15	114	
Femoral neck median ± IQR	0.644 ± 0.168	0.684 ± 0.153	0.217
n available	14	116	
Total Femur mean ± SD	0.694 ± 0.139	0.724 ± 0.129	0.177
n available	15	126	

COPD - Chronic Obstructive Pulmonary Disease; HRT - Hormone Replacement Therapy; IBD - Inflammatory bowel disease

ings highlight the importance of ensuring appropriate transition to antiresorptive treatment after anabolic therapy to potentially improve survival outcomes. Further studies are warranted to confirm these results and explore underlying mechanisms.

177 - POST-TERIPARATIDE MANAGEMENT: COMPARING THE IMPACT OF DENOSUMAB AND BISPHOSPHONATES IN BONE MINERAL DENSITY

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Introduction: Teriparatide promotes increased bone mass in patients with severe osteoporosis. However, the subsequent therapeutic strategy may influence the maintenance of the gains obtained. The aim of this study was to compare the BMD variation after teriparatide discontinuation in patients undergoing different subsequent antiresorptive therapies.

Methods: A retrospective cohort study involving patients treated with teriparatide for 18 to 24 months followed by a subsequent antiresorptive therapy (bisphosphonates or denosumab) was conducted. Patients with information on subsequent treatment, DEXA at the end of the teriparatide treatment period and at least one follow-up DEXA in the 3 years after teriparatide discontinuation were included. Patients were divided into three groups according to subsequent treatment: denosumab, intravenous (IV) or oral bisphosphonates.

Baseline characteristics were compared by One-Way ANOVA or Kruskal-Wallis for continuous variables according to normality, or by Chi-Square test for categorical variables. A One-Way ANOVA was used to compare the variation of BMD between the two moments between the 3 groups. Results with $p<0.05$ were considered statistically significant.

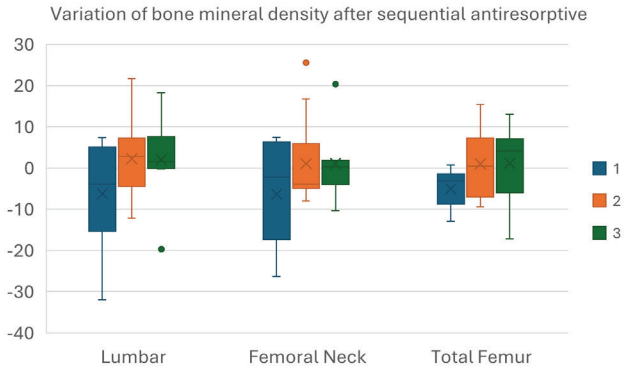
Results: The study included a total of 54 patients, 43 of whom were female (79,6%). Sociodemographic and baseline clinical characteristics are summarized in table 1: there were no statistically significant differences between the groups. The patients were treated with teriparatide for a mean of 23,69 ± 1,44 months. Prior to teriparatide treatment, 28 patients (51,9%) had received antiresorptive therapy, most commonly with alendronate (21 patients [38,9%]) (Tab.1).

The most common treatment following the teriparatide was zoledronate (27 patients [50,0%]), followed by denosumab and alendronate. Accordingly, the patients were divided into three groups: oral bisphosphonates (12 patients: 11 alendronate and 1 ibandronate), intravenous bisphosphonates (28 patients: 27 zoledronate and 1 pamidronate) and denosumab (14 patients).

177. TABLE I. Sociodemographic and baseline clinical characteristics

	Study group	Oral BP	IV BP	Denosumab	p-value
Female, N (%)	43 (79,6)	10 (78,5)	22 (78,6)	11 (78,6)	0,937
Age (y), median ± IQR	62,00 ± 14,0	58,50 ± 19,0	62,00 ± 16,0	64,0 ± 10,0	0,535
BMI (kg/m²), mean ± SD	25,72 ± 5,77	24,77 ± 3,90	26,13 ± 7,04	25,72 ± 4,33	0,799
Smoking habits					
Previous history	3 (5,6)	0 (0)	2 (7,1)	1 (7,1)	0,777
Active smoking	8 (14,8)	2 (16,7)	5 (17,9)	1 (7,1)	
BMD, g/cm² (mean ± SD)					
Lumbar	0,872 ± 0,156	0,865 ± 0,135	0,891 ± 0,193	0,847 ± 0,108	0,794
Femoral neck	0,714 ± 0,111	0,759 ± 0,123	0,719 ± 0,105	0,675 ± 0,112	0,220
Total femur	0,770 ± 0,132	0,816 ± 0,120	0,770 ± 0,129	0,730 ± 0,147	0,286
BMD gains with teriparatide					
Lumbar (%), mean ± SD	16,8 ± 17,9	24,3 ± 19,8	15,0 ± 18,2	11,6 ± 14,3	0,271
Femoral Neck (%), median ± IQR	6,7 ± 12,5	10,2 ± 21,5	4,2 ± 15,2	6,2 ± 11,2	0,615
Total femur (%), mean ± SD	5,4 ± 8,2	10,0 ± 5,5	4,1 ± 8,9	4,3 ± 7,9	0,108
Prior antiresorptive, N (%)	28 (51,9)	3 (25,0)	17 (60,7)	8 (57,1)	0,276
Alendronate	21 (38,9)	2 (16,7)	11 (39,3)	8 (57,1)	
Ibandronate	3 (5,6)	1 (8,3)	2 (7,1)	0	
Zoledronate	2 (3,7)	0	2 (7,1)	0	
Pamidronate	2 (3,7)	0	2 (7,1)	0	
Duration of teriparatide treatment (m), mean ± SD	23,69 ± 1,44	23,50 ± 1,24	23,89 ± 1,28	23,43 ± 1,87	0,550

BP - bisphosphonates



177 – Figure 1. Changes in BMD between the end of teriparatide treatment and the follow-up BMD assessment

The changes in BMD between the end of teriparatide treatment and the follow-up BMD assessment in the 3 groups and shown in Figure 1. Mean change in the lumbar BMD was -4.46±11.93% in the oral BFF group, +3.46±10.99% in the IV BFF group and -2.24±10.05% in the denosumab group. As for femoral neck BMD, mean change was -3.34±12.39% in the oral BFF group, -1.84±9.37% in the IV BFF group and 4.32±10.92% in the denosumab group. Lastly, mean change in the total femur BMD was -2.19±6.23% in the oral BFF group, 0.52±6.94% in the IV BFF group and 1.91±7.75% in the denosumab group. There were no statistically significant differences between group in the analysis (p=0.204; 0.158; 0.358, respectively).

Conclusion: In this study, there were no statistically significant differences between the effects of denosumab, oral bisphosphonates and intravenous bisphosphonates on bone mineral density following discontinuation of teriparatide treatment. Further studies with larger sample sizes and longer follow-up periods are needed to confirm these findings.

178 - LONGITUDINAL EVALUATION OF BONE STATUS WITH RADIOFREQUENCY ECHOGRAPHIC MULTI SPECTROMETRY (REMS) TECHNOLOGY IN A PERITONEAL DIALYSIS COHORT

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Introduction: Dual x-ray absorptiometry (DXA) is the current recommended method to assess bone mineral density (BMD) in chronic kidney disease (CKD) patients, but it has known limitations, including its sensitivity to artifacts such as calcifications and inability to assess bone quality. Radiofrequency Echographic Multi-Spectrometry (REMS) has shown moderate agreement with DXA and potential for fracture risk prediction in a peritoneal dialysis (PD) setting. However, its utility in longitudinal monitoring in CKD remains unknown.

Methods: Prospective cohort study conducted at the University of Verona, Italy between June 2021 and June 2025. We recruited patients undergoing peritoneal dialysis (PD) that agreed to undergo two REMS and DXA

178 – TABLE I. Comparison of the values assessed by DXA and REMS cross-sectionally at baseline and follow-up evaluations

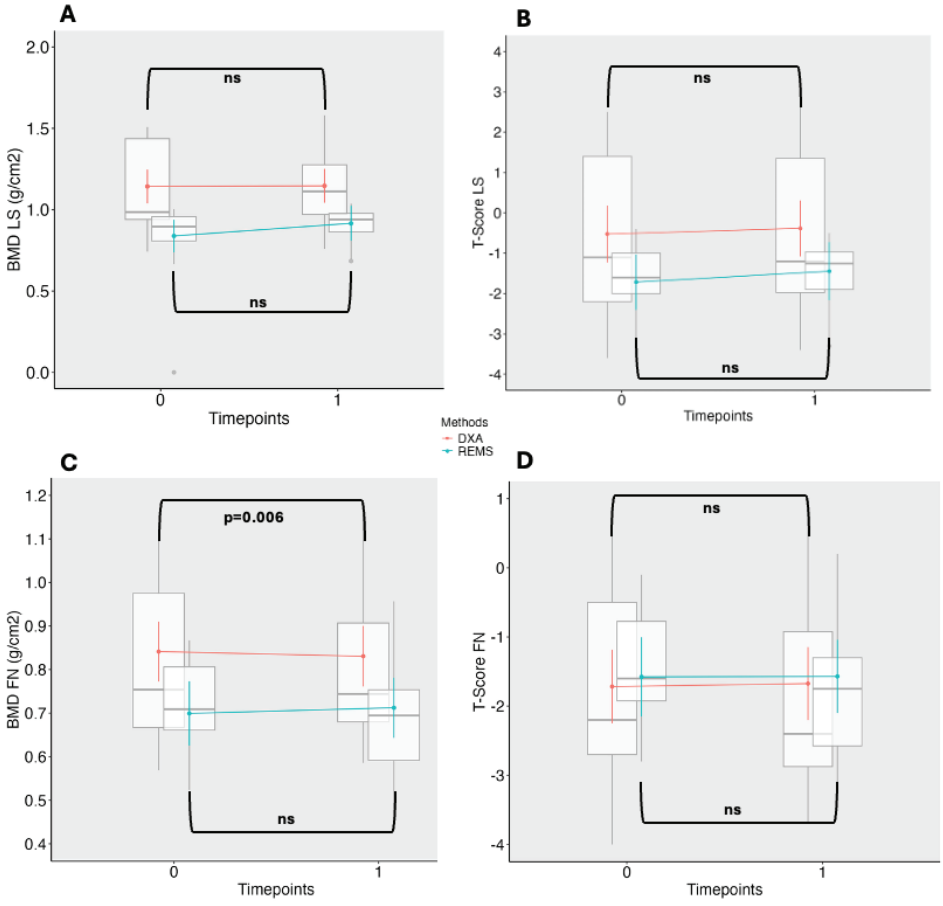
	DXA	REMS	p-value
Baseline			
Lumbar Spine BMD	0.980 (0.935-1.430)	0.905 (0.0.826-0.968	<0.001
Femoral Neck BMD	0.748 (0.665-0.975)	0.693 (0.659-0.803)	0.007
Lumbar Spine T-Score	-1.5 (-2.2, 1.3)	-1.7 (-2.2, -1)	0.011
Femoral Neck T-Score	-2.2 (-3, -0.6)	-1.5 (-1.9, -0.7)	0.784
Follow-up			
Lumbar Spine BMD	1.066 (0.958-1.268)	0.932 (0.838-0.975)	<0.001
Femoral Neck BMD	0.726 (0.655-0.902)	0.687 (0.565-0.752)	<0.001
Lumbar Spine T-Score	-1.7 (-2.1, 1.2)	-1.3 (-1.9, -1)	0.093
Femoral Neck T-Score	-2.5 (-3, -1.1)	-1.8 (-2.7, -1.3)	0.670

Footnote: DXA – dual x-ray absorptiometry, REMS – radiofrequency Echographic multi-spectrometry, BMD – bone mineral density

178 – TABLE II. Comparison of longitudinal changes in BMD and T-score assessed by REMS (vs. DXA) at the lumbar spine and femoral neck, with and without adjustment for covariates

	Lumbar Spine		Femoral Neck	
Change in BMD overtime	Coefficient	p-value	Coefficient	p-value
REMS (compared to DXA)	0.078	0.352	0.018	0.665
	Adjusted Analysis§			
	Coefficient	p-value	Coefficient	p-value
REMS (compared to DXA)	0.146	0.213	0.097	0.094
AAC score	0.002	0.800	0.006	0.133
REMS (compared to DXA) x AAC score	-0.011	0.364	-0.011	0.077
Change in T-Score overtime	Unadjusted Analysis			
	Coefficient	p-value	Coefficient	p-value
REMS (compared to DXA)	0.184	0.679	-0.276	0.497
	Adjusted Analysis§			
	Coefficient	p-value	Coefficient	p-value
REMS (compared to DXA)	0.128	0.837	0.490	0.282
AAC score	-0.015	0.724	0.045	0.154
REMS (compared to DXA) x AAC score	-0.002	0.968	-0.079	0.119

§ Adjusted for AAC score, PD vintage and time between evaluations; DXA – dual x-ray absorptiometry, REMS – radiofrequency Echographic multi-spectrometry, AAC – abdominal aortic calcification



178 – Figure 1. Individual longitudinal evaluation of BMD and T-scores assessed by DXA and REMS (A—BMD LS, B —T-Score LS, C — BMD FN, D —T-Score FN). p-values derived from linear mixed-effects with covariate (time between evaluations).

evaluations at least 6 months apart. The primary outcome was the comparison between REMS and DXA in assessing longitudinal changes in BMD and T-scores at the lumbar spine (LS) and femoral neck (FN) in PD patients. We used linear mixed-effects models including time (baseline vs follow-up), method (DXA vs REMS), abdominal aortic calcification (AAC) score, PD vintage and time between the evaluations to assess for differences in BMD/T-score changes between methods.
Results: A total of 20 patients were included with a median PD vintage of 3.5 (ran 2.9-5.4) years. The mean age was 60.4±13.9 years at baseline and 62.5±14.1 years at the follow-up. The median time between the two evaluations was 19.8 (14.4-33.7) months. Fifty-five patients (n=11) were men, and the most common etiology of CKD was hypertension (n=8, 40%).

Figure 1 shows the evolution of measurements with DXA and REMS. DXA showed a significant decrease in FN BMD over time (0.748 (0.665-0.975) vs 0.726 (0.655-0.902), p=0.006, with a annualized percentage change of -3.2%, p=0.039), while no significant changes were observed in LS BMD or T-scores. There were no differences in BMD and T-scores of FN and LS assessed by REMS over time, neither in the annualized percentage changes. The AAC score significantly increased between evaluations (5.8±7.2 vs 7.7±8.1, p=0.003).

At both timepoints, DXA and REMS showed significantly different absolute values for LS BMD, FN BMD and LS T-Scores (Table 1). Despite these differences, the trajectories over time were similar between DXA and REMS for LS BMD (p=0.364) and T-score (p=0.837) and for FN BMD (p=0.094) and T-score (p=0.119) (Table 2). The AAC score was significantly associated with both T-scores and BMD obtained in each time point, with higher vascular calcification associated to lower BMD and T-scores, regardless of the method in use. However, the evolution of the measurements with DXA and REMS was consistent and not influenced by the AAC score (p=0.364 for LS BMD and p=0.077 for FN BMD).
Discussion: Our data shows that REMS and DXA yield systematically different absolute values for BMD and T-scores in PD patients but show similar longitudinal trajectories over time. AAC and PD vintage did not influence the evolution of the methods measurements. These findings support the use of REMS as a complementary tool to DXA for monitoring bone health in patients with advanced CKD on PD.

189 - OUTCOMES OF CHILDREN BORN TO WOMEN WITH AXIAL SPONDYLARTHRITIS WITH AND WITHOUT IN UTERO EXPOSURE TO BIOLOGIC DISEASE MODIFYING ANTI-RHEUMATIC DRUGS

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Purpose: The outcomes of children born to women with rheumatic diseases, such as axial spondylarthritis (axSpA), are influenced by maternal autoantibodies, cytokines, drugs and pregnancy complications.1-2 Reports suggest inconsistent offspring risks of infections, autoimmune diseases (AD) and neurodevelopmental disorders (ND).2-3 This study aimed to assess outcomes of children born to mothers with axSpA, with and without in utero exposure to biologic disease modifying anti-rheumatic drugs (bDMARDs).
Methods: Monocentric retrospective study including children born to women with axSpA followed during pregnancy. Demographic, maternal disease and perinatal data were obtained from medical records. Data on lactation, developmental milestones and childhood illnesses were reported by mothers. Disease activity was assessed using ASDAS-CPR. Statistical analysis was performed with SPSS version 29.0 considering p-values lower than 0.05 as statistically significant.
Results: Twenty-eight children from 22 women with axSpA were included. Maternal disease characteristics are summarized in Table 1. Average maternal age was 34.9±3.3 years. Average disease duration was 72.9±50.4 months, significantly longer in bDMARD-users (p=0.022). Most women presented low/no disease activity at conception (n=26; 92.8%). Eight pregnancies involved bDMARD use, primarily certolizumab pegol (n=6). Second-trimester ASDAS-CPR was significantly lower in bDMARD-users (p=0.038). Flares were more frequent during third trimester or first postpartum visits. Pregnancy characteristics are described in Table 2. Every child was born at term and with normal weight, despite single cases of preeclampsia, threatened preterm labor and fetal growth restriction. One congenital malformation (interventricular communication) was reported. Children outcomes are detailed in Table 3. Average children age was 3.6±2.3 years with 53.6% males. Most were breastfed (85.7%). Developmental milestones occurred as expected. No school-age child repeated a school year. Significant infections were prevalent (21.4% hospitalized; 42.9% recurrent), mainly bronchiolitis and otitis. ND were reported in 10.7%, while AD were absent. Sleep disturbances or allergic diseases were observed in up to 25%, with neuropsychiatric disorders or feeding problems below 10%. Pregnancy or children's outcomes did not differ by bDMARD exposure.
Conclusions: Maternal bDMARD use was associated with longer disease duration and lower second-trimester ASDAS-CRP but did not affect children's outcomes.

189 – TABLE I. Characterization of material disease per child born to mother with axial spondylarthritis, with and without in utero exposure to biologic disease modifying and anti-rheumatic drugs

	All (n=28)	With exposure to bDMARD (n=8)	Without exposure to bDMARD (n=20)	p-value
Age at time of pregnancy, years - mean±SD	34.9 ±3.3	35.1 ±3.7	34.8 ±3.2	0.791
Disease duration at time of pregnancy, months - mean±SD	72.9 ±50.4	106.7 ±58.1	59.4 ±41.2	**0.022**
Preconception counseling Rheumatology appointment - n (%)	15 (53.6)	5 (62.5)	10 (50)	0.686
Disease subtype - n (%)				
Ankylosing spondylitis	10 (35.7)	2 (25)	8 (40)	
Psoriatic arthritis	2 (7.1)	1 (12.5)	1 (5)	
Arthritis associated with IBD	2 (7.1)	1 (12.5)	1 (5)	
Enthesitis-related JIA	2 (7.1)	0 (0)	2 (10)	
Undifferentiated SpA	12 (42.9)	4 (50)	8 (40)	
HLA-B27 positivity* - n (%)	18 (64.3)	4 (50)	14 (70)	1.000
Peripheric involvement - n (%)	21 (75)	5 (62.5)	16 (80)	0.371
bDMARD during pregnancy - n (%)	8 (28.6)	8 (100)	-	
Certolizumab pegol	6 (21.4)	6 (75)	-	
Etanercept	1 (3.6)	1 (12.5)	-	
Golimumab	1 (3.6)	1 (12.5)	-	
Other anti-rheumatic drugs during pregnancy - n (%)				
Corticosteroids	9 (32.1)	2 (25)	7 (35)	1.000
Salazopyrin	6 (21.4)	0 (0)	6 (30)	
Methotrexate	1 (3.6)	0 (0)	1 (5)	
Disease activity state at preconception - n (%)				
Inactive disease	10 (35.7)	3 (37.5)	7 (35)	
Low disease activity	16 (57.1)	5 (62.5)	11 (55)	
High disease activity	2 (7.1)	0 (0)	2 (10)	
Disease activity score				
Preconception - median (IQR)	1.3 (1)	1.3 (1)	1.3 (0.9)	0.877
First trimester* - mean±SD	1.3 ±0.5	1.3 ±0.6	1.3 ±0.6	0.867
Second trimester - mean±SD	1.5 ±0.6	1.2 ±0.5	1.7 ±0.6	**0.038**
Third trimester* - mean±SD	1.7 ±0.8	2 ±1.1	1.5 ±0.6	0.363
Postpartum - median (IQR)	1.3 (1)	1.5 (0.9)	1.2 (1)	0.729
Flare occurrence - n (%)				
First trimester	1 (3.6)	0 (0)	1 (5)	
Second trimester	1 (3.6)	0 (0)	1 (5)	
Third trimester	2 (7.1)	2 (25)	0 (0)	
Postpartum	2 (7.1)	1 (12.5)	1 (5)	

Footnote: SD - Standard deviation. IBD - Inflammatory bowel disease. JIA – Juvenile idiopathic arthritis. IQR - Interquartile range. bDMARD - Biologic disease modifying anti-rheumatic drugs. *Total of 3 missing values for HLA-B27 positivity (2+1); total of 6 missing values for first trimester activity score (1+5); total of 4 missing values for third trimester activity score (2+2).

189 – TABLE II. Characterization of pregnancies per child born to mother with axial spondylarthritis, with and without in utero exposure to biologic disease modifying and anti-rheumatic drugs

	All (n=28)	With exposure to bDMARD (n=8)	Without exposure to bDMARD (n=20)	p-value
Primiparous mother - n (%)	12 (42.9)	5 (62.5)	7 (35)	0.231
Additional pregnancy risk factors - n (%)				
Twin pregnancy	2 (7.1)	0 (0)	2 (10)	
Maternal hypertension	2 (7.1)	1 (12.5)	1 (5)	
Maternal overweight/obesity	3 (10.7)	1 (12.5)	2 (10)	
Maternal outcomes - n (%)				
Gestational diabetes	3 (10.7)	1 (12.5)	2 (10)	
Gestational hypertension	1 (3.6)	1 (12.5)	0 (0)	
Preeclampsia	1 (3.6)	1 (12.5)	0 (0)	
Placental abruption	2 (7.1)	0 (0)	2 (10)	
Threatened preterm labor	1 (3.6)	0 (0)	1 (5)	
Induction	5 (17.9)	0 (0)	5 (25)	
Instrumental delivery	5 (17.9)	2 (25)	3 (15)	0.606
Caesarean delivery	10 (35.7)	1 (12.5)	9 (45)	0.194
Neonatal outcomes				
Fetal growth restriction - n (%)	1 (3.6)	0 (0)	1 (5)	
Gestational age at birth, weeks - median (IQR)	39 (2)	39 (2)	39 (2)	0.771
Full-term newborn - n (%)	28 (100)	8 (100)	20 (100)	1.000
Birth weight, g - mean±SD	3210 ±348	3218 ±431	3207 ±322	0.938
Normal birth weight - n (%)	28 (100)	8 (100)	20 (100)	1.000
Birth length, cm - median (IQR)	48.8 (1)	48.4 (1)	48.5 (1)	0.854
Birth head circumference, cm - mean±SD	34 ±1.2	33.8 ±1.4	34.1 ±1.2	0.615
1-minute Apgar score - median (IQR)	9 (0)	9 (1)	9 (0)	0.155
5-minute Apgar score - median (IQR)	10 (0)	10 (0)	10 (0)	1.000
Congenital malformation - n (%)	1 (3.6)	0 (0)	1 (5)	

Footnote: IQR - Interquartile range. SD - Standard deviation. bDMARD - Biologic disease modifying anti-rheumatic drugs.

189 – TABLE III. Characterization of children born to mothers with axial spondylarthritis, with and without in utero exposure to biologic disease modifying anti-rheumatologic drugs

	All children (n=28)	With *in utero* exposure to bDMARD (n=8)	Without *in utero* exposure to bDMARD (n=20)	p-value
Age at time of questionnaire, years - mean±SD	3.6 ±2.3	2.8 ±1.8	3.9 ±2.4	0.242
Gender - n (%)				0.410
Female	13 (46.4)	5 (62.5)	8 (40)	
Male	15 (53.6)	3 (37.5)	12 (60)	
Breastfeeding				
Breastfed - n (%)	24 (85.7)	7 (87.5)	17 (85)	1.000
Duration of breastfeeding, months - median (IQR)	8.5 (19)	7.5 (18)	8.5 (20)	0.702
Developmental milestones				
Age at sitting position*, months - median (IQR)	6 (2)	6 (2)	6 (2)	0.725
Age at walking*, months - mean±SD	12.8 ±2.2	12.1 ±2.6	13.2 ±2.1	0.311
Age at first speech*, months - mean±SD	12.6 ±3.8	12.4 ±4.4	12.6 ±3.7	0.913
Age at eating independently*, months - mean±SD	15 ±7.5	12.8 ±7.3	15.8 ±7.6	0.411
Age at diaper daytime discontinuation*, months - median (IQR)	24 (7)	24 (12)	26 (7)	0.435
School performance - n (%)				
School age children	5 (17.9)	0 (0)	5 (25)	
Grade retention	0/5 (0)	0 (0)	0/5 (5)	
Health outcomes - n (%)				
Significant infections				
Infection requiring hospitalization	6 (21.4)	1 (12.5)	5 (25)	0.640
Recurrent infection	12 (42.9)	3 (37.5)	9 (45)	1.000
Autoimmune diseases	0 (0)	0 (0)	0 (0)	
Neurodevelopmental disorders	3 (10.7)	1 (12.5)	2 (10)	1.000
Autism spectrum disorder	1 (3.6)	0 (0)	1 (5)	
Attention-deficit and hyperactivity disorder	2 (7.1)	1 (12.5)	1 (5)	
Neuropsychiatric disorders	1 (3.6)	0 (0)	1 (5)	
Epilepsy	1 (3.6)	0 (0)	1 (5)	
Sleep disturbances	6 (21.4)	3 (37.5)	3 (15)	0.311
Insomnia	2 (7.1)	1 (12.5)	1 (5)	
Pavor nocturnus	4 (14.3)	2 (25)	2 (10)	
Allergic diseases	7 (25)	1 (12.5)	6 (30)	0.633
Asthma	2 (7.1)	0 (0)	2 (10)	
Atopic dermatitis	3 (10.7)	0 (0)	3 (15)	
Allergic conjunctivitis	1 (3.6)	1 (12.5)	0 (0)	
Seasonal allergies	1 (3.6)	0 (0)	1 (5)	
Feeding problems	2 (7.1)	1 (12.5)	1 (5)	0.497
Food intolerance	1 (3.6)	1 (12.5)	0 (0)	
Food allergy	1 (3.6)	0 (0)	1 (5)	

Footnote: SD - Standard deviation. IQR - Interquartile range. bDMARD - Biologic disease modifying anti-rheumatic drugs. *Total of 5 missing values for age at sitting position (1+4); total of 3 missing values for age at walking (1+2); total of 5 missing values for age at first speech (1+4); total of 5 missing values for age at eating independently (2+3); total of 9 missing values for age at diaper daytime discontinuation (4+5).

Longer-term and case-control studies are needed for better reproductive counseling in axSpA.

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195 - CHRONIC KIDNEY DISEASE - MINERAL AND BONE DISORDER: DEMOGRAPHIC AND CLINICAL DIFFERENCES IN A COHORT WITH PROXIMAL FEMUR FRAGILITY FRACTURE

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Objective: This study aimed to identify demographic or clinical differences in patients with and without chronic kidney disease (CKD) who had experienced a proximal femur (PF) fragility fracture (FF).
Material and Methods: Retrospective single-center study including patients aged 50 years or older who were referred to a Fracture Liaison Service during their hospitalization in an Orthopedics department due to PFFF, registered in Reuma.pt FF protocol. Individuals were grouped based on their glomerular filtration rate according to 2021 CKD-Epidemiology Collaboration equation either as CKD (< 60 mL/min/1.73 m2) or non-CKD patients (≥ 60 mL/min/1.73 m2). Demographic and clinical data were collected and compared between groups.
Results: A total of 230 patients were included. Sixty-four patients presented CKD (27.8%), of which 84.4% stage 3 (n=54), 12.5% stage 4 (n=8) and 3.1% stage 5 (n=2), these latter on hemodialysis (Table 1). Osteoporosis (OP) was diagnosed in 93.9% (n=216). In the remaining, adynamic bone disease was weighed, with 4.8% having presumed diagnosis (n=11) and 1.3% currently being considered for bone biopsy (n=3).

Most patients were females (n=199, 86.5%), all postmenopausal (Table 2). CKD patients were considerably older than non-CKD (84.0±7.3 vs. 79.3±7.8 years, p=<0.001).

No significant differences were found regarding other health conditions or drugs that induce OP, although CKD patients tended to have higher rates of early menopause [n=11 (23.4%) vs. n=14 (11.8%), p=0.059] and furosemide use [n=3 (4.7%) vs. n=1 (0.6%), p=0.066].

CKD patients had higher phosphate (mean 3.6±0.5 vs. 3.4±0.5 mg/dL, p=0.014) and parathormone (PTH) levels [median 65.9 (52.8) vs. 44.6 (28.3) pg/mL, p=<0.001].

With no group differences, 50.4% (n=116) had at least one previous FF (p=0.250) and 7.7% (n=17) had a history of parental PFFF (p=1.000). Overall, median femoral neck T-score was -2.7 (1.4) (p=0.583) and 14.3% of the patients (n=33) had received prior anti-OP drugs (p=0.360).
Conclusions: CKD patients were older and tended to have greater rates of early menopause and furosemide use, as well as higher phosphate and PTH levels. However, CKD did not impact the existence of prior FF, history of parental PFFF, femoral neck T-score, or previous use of anti-OP drugs.

196 - INTIMA-MEDIA THICKNESS OF CAROTID ARTERIES IN SYSTEMIC SCLEROSIS: AN UPDATED META-ANALYSIS

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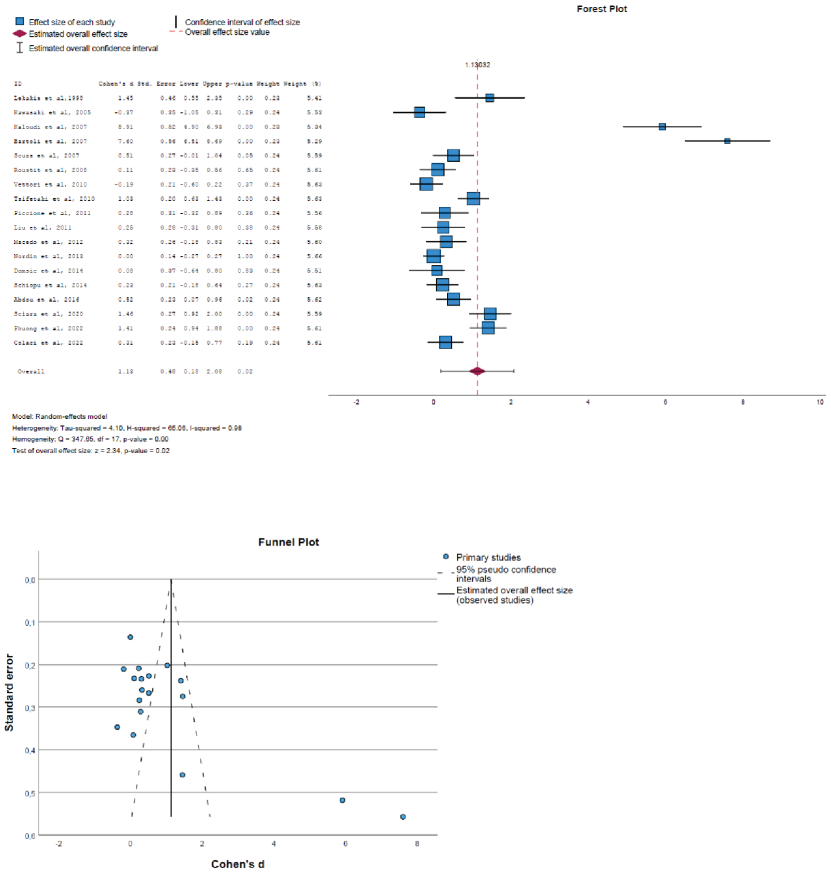
Background: Carotid Intimida-media thickness (CIMT) is used to assess subclinical atherosclerosis and prediction of cardiovascular events. Several studies had confounding evidence if CIMT is increased in Systemic Sclerosis. This study presents an updated meta-analysis incorporating recent evidence.
Methods: We conducted a systematic review of PubMed, Scopus and Cochrane of studies comparing CIMT in SSc patients and controls. Effect sizes were

195 – TABLE I. Disease characterization

Disease characteristics (N=230)	n (%)
Kidney function	
GFR CKD-EPI < 60 mL/min/1.73 m²	64 (27.8)
G3	54 (84.4)
G4	8 (12.5)
G5 (on hemodialysis)	2 (3.1)
GFR CKD-EPI ≥ 60 mL/min/1.73 m²	166 (72.2)
Mineral and bone disorder	
Osteoporosis	216 (93.9)
Adynamic bone disease (analytically presumed)	11 (4.8)
Suspicion of adynamic bone disease (await biopsy)	3 (1.3)

Footnote: GFR - Glomerular filtration rate. CKD-EPI - Chronic kidney disease epidemiology collaboration.



196 – Figure 1. Meta-analysis with funnel plot

pooled using a random-effects model, and heterogeneity was assessed via I^2 and Tau^2 statistics. A funnel plot evaluated publication bias.

Results: Data from 18 studies encompassing 1,864 participants (Figure 1) revealed a statistically significant increase in CIMT in SSc patients (Cohen's d = 1.13, 95% CI 0.18–2.08, p = 0.02). Heterogeneity was substantial (I^2 = 98%, p < 0.01), highlighting variability in study populations and methodologies. The funnel plot showed several studies outside the pseudo confidence intervals (Figure 2). Subgroup analysis indicated consistency in findings across diverse demographic and methodological contexts.

Discussion: This meta-analysis underscores the elevated cardiovascular risk in SSc patients, as evidenced by significantly increased CIMT compared to controls. The presence of studies outside the pseudo confidence intervals in the funnel plot may indicate selective reporting, small-study effects, or true heterogeneity related to differences in study design or patient populations. These findings highlight the necessity for standardized methodologies in measuring CIMT and controlling for confounding variables, such as age, comorbidities, and treatment regimens. Despite these variations, the overall trend confirms the association between SSc and subclinical atherosclerosis. Future research should focus on longitudinal studies to elucidate the progression of vascular changes and the impact of targeted interventions.

Conclusion: This updated meta-analysis confirms significantly increased CIMT in SSc patients, advocating for intensified cardiovascular monitoring and preventative strategies in SSc management.

197 - CLINICAL PROFILE OF EARLY-ONSET OSTEOPOROSIS: INSIGHTS FROM A PORTUGUESE TERTIARY CENTER

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Introduction: Early-Onset Osteoporosis (EOOP) is defined by decreased bone mineral density (BMD) and increased susceptibility to fragility fractures before the

197 – TABLE I. Key differences between primary and secondary EOOP groups

	Primary	Secondary
Number of Patients	14	25
Mean Age at Diagnosis	38.85 ± 9.57	37.04 ± 9.40
Lumbar Spine BMD (g/cm²)	0.82 ± 0.15	0.83 ± 0.10
Femoral Neck BMD (g/cm²)	0.76 ± 0.13	0.68 ± 0.16
Total Femur BMD (g/cm²)	0.75 ± 0.08	0.77 ± 0.09
Lumbar Spine T-score	-2.98 ± 1.07	-2.69 ± 0.70
Femoral Neck T-score	-1.96 ± 0.91	-2.14 ± 1.09
Total Femur T-score	-2.16 ± 0.62	-1.94 ± 0.71
Smokers (n)	4 (29%)	3 (12%)
Adequate Calcium Intake (n)	4 (29%)	12(48%)
Patients with Fractures during Treatment (n)	0 (0%)	2 (8%)
Patients with ≥1 Fracture Before Treatment (n)	10 (70%)	5 (20%)
Patients with >1 Fracture Before Treatment (n)	6 (43%)	1 (4%)
First line treatment with:		
Bisphosphonates	10 (71%)	5 (20%)
Denosumab	1 (7%)	4 (16%)
Teriparatide	1 (7%)	1 (4%)
Patients with >1 Treatment	4 (29%)	0 (0%)

age of 50. Unlike classic osteoporosis, EOOP is frequently associated with secondary causes, presenting a diagnostic and therapeutic challenge due to its heterogeneous clinical spectrum.

Objective: To characterize the clinical profile of EOOP patients followed in a Portuguese tertiary center and compare clinical and therapeutic features between primary and secondary EOOP groups.

Methods: A retrospective review of medical records was conducted for patients diagnosed with osteoporosis before age 50 at our Rheumatology Unit. Data collected included demographics, underlying etiologies, BMD, fracture history, treatments, lifestyle factors, and laboratory results.

Results: A total of 39 patients were included (70% female; mean age 37.7 ± 9.4 years). EOOP was secondary in 64% (n=25), with 26% (n=10) drug-induced related (primarily due to corticosteroids (n=7) and cancer-related hormone therapy (n=3)) and 38% (n=15) attributed to other conditions, namely gastrointestinal diseases (n=3), premature menopause (n=3), genetic diseases (n=3), primary hyperparathyroidism (n=2), low body weight (n=2) and rheumatic disease (n=1). The remaining 36% (n=14) were classified as idiopathic/primary EOOP, including one case of osteogenesis imperfecta. A comparison of key differences in both groups is summarized in Table 1.

Mean lumbar spine T-scores were –2.98 ± 1.07 (primary) vs. –2.69 ± 0.70 (secondary); femoral neck T-scores were –1.96 ± 0.91 vs. –2.14 ± 1.09, and total femur T-scores were –2.16 ± 0.62 vs. –1.94 ± 0.71, respectively.

Prior to treatment, 15 patients (38%) sustained low-impact fractures—10 from the primary group and 5 in the secondary group. Among them, 7 of these experienced multiple fractures. Only two patients (5%) reported fractures during or after treatment, both in the secondary group.

Pharmacological treatment was initiated in 51% of patients: bisphosphonates (28%), denosumab (8%), teriparatide (5%), and sequential therapy (10%). The remaining patients received calcium and/or vitamin D supplementation. Bisphosphonates were used as first-line therapy in 71% of primary cases vs. 20% of secondary. Treatment modifications were influenced by reproductive planning (teriparatide), adverse events (e.g., epigastralgia, malar pain), or insufficient response.

Seven patients (18%) were active smokers. Adequate calcium intake was reported by 41% of patients. Routine laboratory results, including calcium, phosphate, vitamin D, PTH, and magnesium levels, were within normal ranges. Genetic testing was performed in eight patients, revealing one case each of Turner syndrome, CHARGE syndrome, osteogenesis imperfecta with COL1A2 mutation and X chromosome anomaly.

Conclusion: EOOP is a heterogeneous and under-recognized condition, frequently secondary in etiology. Fractures were common prior to diagnosis, suggesting missed opportunities for earlier intervention. The findings underscore the need for increased awareness, timely diagnosis, and individualized management strategies in younger adults with osteoporosis.

201 - VALIDATION AND CLINICAL INTERPRETABILITY OF PORTUGUESE PSAID - PSORIATIC ARTHRITIS IMPACT OF DISEASE IN THE PORTUGUESE POPULATION- PRELIMINARY ANALYSIS

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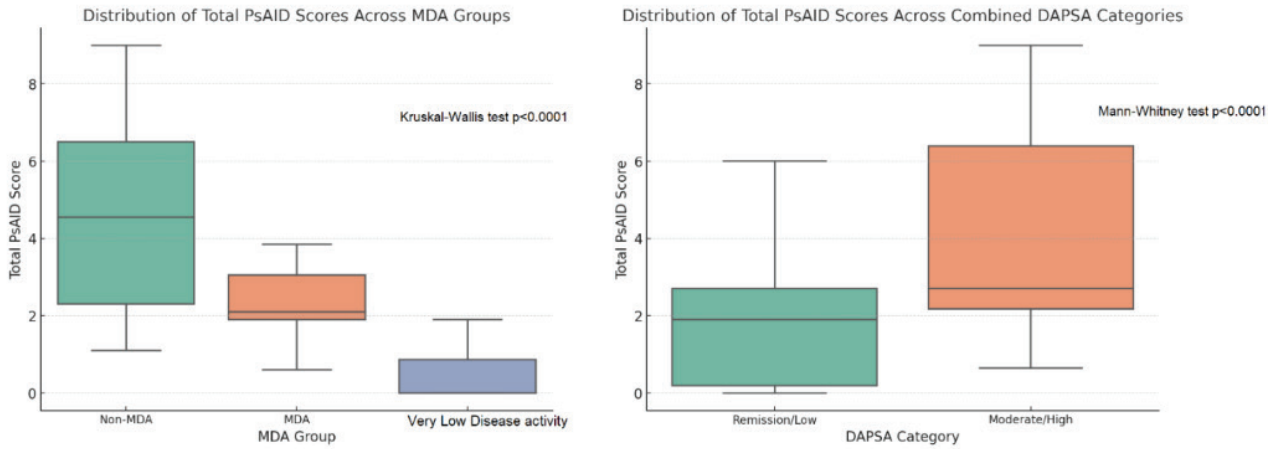
Background: Psoriatic arthritis (PsA) is a chronic inflammatory disease with a broad spectrum of clinical manifestations, contributing to significant physical, emotional, and social impact on patients' quality of life. Assessing patients' perceptions of their disease impact is crucial for understanding the real impact of PsA. The Psoriatic Arthritis Impact of Disease (PsAID-12) questionnaire was developed by the European League Against Rheumatism (EULAR) to specifically capture this impact for the patient.
Objectives: To validate the PsAID-12 in the Portuguese population and evaluate its clinical applicability.
Methods: Preliminary, single-center study including Portuguese patients meeting the CASPAR criteria for PsA, followed in one Portuguese Rheumatology Department. Reliability was assessed using Cronbach's alpha and intraclass correlation coefficient (ICC). Construct validity was evaluated through exploratory factor analysis and Spearman correlations with other patient-reported outcome measures (PROMs) and disease activity measures [Disease Activity Score in 28 Joints with C-Reactive Protein (DAS28-CRP), Health Assessment Questionnaire (HAQ-DI), Functional Assessment of Chronic Illness Therapy- fatigue (FACIT-F), Visual Analog Scale for Pain (VAS Pain), Visual Analog Scale for Disease Activity (VAS Disease), Disease Activity in Psoriatic Arthritis (DAPSA)].

Additionally, the interpretability of PsAID-12 was explored in relation to Minimum disease activity (MDA) categories (Non-MDA, MDA, Very Low disease activity) and DAPSA-defined disease activity categories (remission/low disease activity vs. moderate/high disease activity). The MDA status was categorized as follows, according to the presence of seven criteria: swollen and tender joint count ≤1, enthesitis ≤1, VAS disease on a 0–10 scale ≤2, VAS pain ≤1.5, HAQ-DI ≤0.5,

201 – TABLE I. Sociodemographic and clinical data

Table 1: sociodemographic and clinical data	PsA patients N= 78
Sex (N, %)	
Female	46 (58.97)
Male	32 (41.03)
Age, years (mean±SD)	54.98 ± 10.97
PsA pattern (N, %)	
Oligoarticular	27 (34.60)
Polyarticular symmetrical	47 (60.30)
DIP predominant	4 (5.10)
Cutaneous psoriasis (N, %)	76 (97.44)
Nail psoriasis (N, %)	31 (39.70)
Dactylitis (N, %)	35 (44.90)
Uveiitis (N, %)	1 (1.30)
Enthesitis (N, %)	22 (28.20)
IBD (N, %)	2 (2.60)
HLA-27 positivity (N, %)	8 (10.30)
DAS 28 CRP (median, IQR)	1.69 [1.64]
DAPSA (median, IQR)	8.75 [11.80]
HAQ-DI (median, IQR)	0.38 [1.00]
VAS disease (median, IQR)	40.00 [50.00]
VAS pain (median, IQR)	40.00 [43.00]
FACIT-F (median, IQR)	39.00 [22.00]
PSAID-12 (median, IQR)	2.30 [3.16]
Minimum disease activity status (N, %)	
Non-minimum activity disease	33 (44.00)
Minimum activity disease	27 (36.00)
Very low activity disease	15 (20.00)
Comorbidities (N, %)	
Obesity	25 (32.10)
High blood pressure	23 (29.50)
Diabetes Mellitus	9 (11.50)
Dyslipidemia	26 (33.30)
Tobacco abuse	9 (11.50)
Alcohol abuse	4 (5.10)
Fibromyalgia	9 (11.54)
Current treatment (N, %)	
bDMARD	33 (42.30)
csDMARD	58 (74.36)
NSAIDs	16 (20.51)
Corticosteroids	19 (24.36)

csDMARD- conventional disease-modifying anti-rheumatic drugs; DAPSA - Disease Activity in Psoriatic Arthritis; DIP- Distal Interphalangeal; FACIT-F - Functional Assessment of Chronic Illness Therapy- fatigue; HAQ-DI- Health Assessment Questionnaire; IBD- Inflammatory bowel disease; IQR- Interquartile range; N- number of patiens; NSAID- Non steroid anti-inflammatory drugs; VAS- Visual Analog Scale;



201 – Figure 1. PsAID total score distribution across Minimum Disease Activity (left) and Disease Activity in Psoriatic Arthritis categories (right)

PASI ≤1: MDA- patients who meet ≥5/7 criteria, very low disease activity- patients meeting 7/7 criteria, and non-MDA: patients fulfilling ≤4 criteria.

Results: 78 patients were enrolled in the study, 46 (58.97%) were female, with a mean age of 54.98± 10.97 years. Peripheral symmetrical polyarthritis was the predominant presentation (47 patients, 60.30%). Sociodemographic and clinical data are presented in Table 1. Internal consistency was excellent (Cronbach's alpha = 0.96). Exploratory factor analysis identified one factor, indicating a cohesive measure of disease impact.

PsAID-12 demonstrated strong construct validity, correlating very strongly with VAS Pain (r=0.91, p<0.001) and VAS Disease (r=0.87, p<0.001), and strongly with HAQ (r=0.75, p<0.001), DAS28-CRP (r=0.59, p<0.01) and FACIT (r=–0.68, p<0.01). PsAID-12 scores differed significantly across MDA categories, with higher scores in non-MDA patients (median 4.55 [4.20] Vs 1.10 [2.15] Vs 0.00 [0.88], p<0.0001). Similarly, PsAID-12 scores were significantly higher in patients with moderate/high DAPSA activity compared to those in remission/low activity (median 2.70 [4.23] Vs 1.90 [2.25], p<0.0001) (Figure 1).

Conclusion: Our study suggests the Portuguese version of PsAID-12 is a reliable and valid instrument for assessing the impact of PsA. Despite the promising results, a larger study with a nationally representative sample is essential to effectively validate the questionnaire in the Portuguese population and confirm its clinical applicability.

202 - ULTRASONOGRAPHY FEATURES OF A1 PULLEY AS A PREDICTIVE TOOL OF RESPONSE TO GLUCOCORTICOID INJECTION IN TRIGGER FINGER

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Introduction: Trigger finger is a frequent cause of hand dysfunction, with a lifetime incidence of 2-3% in the general population and up to 10% in individuals with diabetes. It is usually idiopathic, resulting from repetitive friction between the flexor tendon and the inner surface of the A1 pulley, impairing tendon gliding. Treatment options depend on disease severity. Ultrasound (US)-guided glucocorticoid (GC) injection into the A1 pulley is widely used in the treatment, with reported efficacy ranging from 47% to 92%. However, evidence on the predictive value of baseline US features for clinical response after GC injection of the A1 pulley is limited.

Objectives: To evaluate if baseline US findings are associated with clinical and functional improvement 12 weeks after US-guided GC injection in patients with trigger finger.

Methods: We conducted a single-center, prospective study including consecutive patients treated with US-guided injection of 40 mg of methylprednisolone into the A1 pulley in the Rheumatology outpatient clinic, between October 2024 and May 2025. Informed consent was obtained. Exclusion criteria were prior GC injection in the same finger within 6 months, inflammatory rheumatic disease and incomplete questionnaires. Demographic and clinical data were recorded at baseline. US features, including A1 pulley thickness, Doppler signal, synovial hypertrophy and tendon sheath distention, were recorded before and 12 weeks after the treatment. Outcomes included pain, assessed with a 100-mm visual analog scale (VAS), and function, assessed with the quick Disabilities of the Arm, Shoulder and Hand questionnaire (qDASH). A clinically meaningful improvement was defined as a ≥15-point

202 – TABLE I. Characterization of US features and clinical and functional outcomes at baseline and 12 weeks after glucocorticoid injection

	Baseline	12 Weeks	P-value
A1 pulley thickness (mm), m ± SD (N=10)	.80 ± .211	.64 ± .215	**.012**
A1 pulley Doppler, n (%) (N=12)	8 (66.7)	2 (16.7)	.070
Tendon sheath synovial hypertrophy, n (%) (N=12)	2 (16.7)	2 (16.7)	1.000
Tendon sheath distention, n (%) (N=12)	4 (33.3)	2 (16.7)	.625
Patient VAS for pain, m ± SD (N=9)	6.8 ± 1.72	2.0 ± 2.78	**<.001**
qDASH, m ± SD (N=15)	52.2 ± 16.56	24.7 ± 21.13	**.004**

m – mean; qDASH - quick Disabilities of the Arm, Shoulder and Hand questionnaire, SD – Standard deviation; VAS – Visual analog scale.

reduction in qDASH. Statistical analysis was performed using SPSS and p≤.05 was considered significant.

Results: Fifteen patients were included (80% females, mean age 56.8±9.93 years). Four (26.7%) had diabetes and 73.3% were manual workers. The dominant hand was affected in 53.3% and the most involved finger was the third (46.7%). Mean symptom duration was 10.2±9.22 months. At 12 weeks, significant reductions were observed in A1 pulley thickness (mean difference=.16 mm; p=.012), VAS pain (mean difference=4.8 mm; p<.001) and qDASH (mean difference=27.5, p=.004) - Table 1. Ten patients (66.7%) achieved clinically meaningful improvement in qDASH. Doppler signal at baseline was associated with greater qDASH improvement after treatment (β=–34,5; p=.027) and higher probability of clinically meaningful improvement (OR 16.0; p=.043).

Discussion: This study demonstrates that US-guided GC injections effectively reduced pain and improved function in patients with trigger finger. The study population was predominantly middle-aged women and manual workers, consistent with established risk factors for trigger finger, such as female sex, age between 40 and 60 years, and repetitive hand activity. Baseline A1 pulley thickness was increased compared to the reference range of 0.4 to 0.6mm described by Guerini et. al in healthy controls. Doppler signal was present in 66.7% at baseline, slightly lower than previously reported. The proportion of patients with functional improvement was comparable with success rates reported in the literature. Baseline A1 pulley Doppler signal was associated with a greater probability of functional improvement at 12 weeks and may be a useful prognostic tool to be used to guide therapeutic decisions. However, the small sample size limits the applicability of our findings, and larger studies are needed to confirm these associations.

209 - CHRONIC KIDNEY DISEASE - MINERAL AND BONE DISORDER: THERAPEUTIC DIFFERENCES IN A COHORT WITH PROXIMAL FEMUR FRAGILITY FRACTURE

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Objective: This study aimed to identify therapeutic differences in patients with and without chronic kidney disease (CKD) who had experienced a proximal femur (PF) fragility fracture (FF).

Material and Methods: Retrospective single-center study including patients aged 50 years or older who were referred to a Fracture Liaison Service during their hospitalization in an Orthopedics department due to PFFF, registered in Reuma.pt FF protocol. Individuals were grouped based on their glomerular filtration rate according to 2021 CKD-Epidemiology Collaboration equation either as CKD (< 60 mL/min/1.73 m2) or non-CKD patients (≥ 60 mL/min/1.73 m2). Diagnostic and therapeutic data were compared between groups.

Results: A total of 230 patients were included. Sixty-four patients presented CKD (27.8%), of which 84.4% stage 3 (n=54), 12.5% stage 4 (n=8) and 3.1% stage 5 (n=2), these latter on hemodialysis (Table 1). Osteoporosis (OP) was diagnosed in 93.9% (n=216). In the remaining, adynamic bone disease (ABD) was weighed, with 4.8% having presumed diagnosis (n=11) and 1.3% currently being considered for bone biopsy (n=3).

No significant differences were found regarding previous use of anti-OP drugs (p=0.360) (Table 2). Overall, alendronate was the most frequent first prior drug (n=24, 72.7%).

On the other hand, current treatment significantly

209 – TABLE I. Disease characterization

Disease characteristics (N=230)	n (%)
Kidney function	
GFR CKD-EPI < 60 mL/min/1.73 m²	64 (27.8)
G3	54 (84.4)
G4	8 (12.5)
G5 (on hemodialysis)	2 (3.1)
GFR CKD-EPI ≥ 60 mL/min/1.73 m²	166 (72.2)
Mineral and bone disorder	
Osteoporosis	216 (93.9)
Adynamic bone disease (analytically presumed)	11 (4.8)
Suspicion of adynamic bone disease (await biopsy)	3 (1.3)

Footnote: GFR - Glomerular filtration rate. CKD-EPI - Chronic kidney disease epidemiology collaboration.

differed between groups (p<0.001). Alendronate and zoledronate were more frequently used in non-CKD patients than in CKD patients [respectively, n=22 (13.3%) vs. n=0 (0.0%), p=0.002 and n=61 (36.7%) vs. n=12 (18.8%), p=0.009]. Denosumab was more commonly employed in the CKD group [n=37 (57.8%) vs. n=61 (36.7%), p=0.004], with CKD patients having 2.4 times the odd of non-CKD patients to receive denosumab (OR = 2.4, 95% CI: 1.3-4.2, p=0.004).

None of the 11 patients with presumed ABD were receiving anti-OP therapy, as well as 2 of the 3 patients being considered for bone biopsy (66.7%). The other patient (33.3%) was maintaining denosumab while awaiting the decision of bone biopsy.

Conclusions: Alendronate and zoledronate were preferred in non-CKD patients and denosumab in CKD patients, the latter probably due to safety concerns. Antiresorptive agents are discouraged in ABD to avoid further suppression of bone turnover. Anabolic agents may be beneficial but have not yet been approved for its treatment. Therefore, most patients with suspected ABD were not under any therapy.

218 - THE REALITY OF OSTEOPOROSIS IN PRIMARY HEALTHCARE: AN OBSERVATIONAL STUDY IN A PORTUGUESE REGION

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Introduction: Osteoporosis affects 5,6% of the Portuguese population, with increasing fracture incidence and costs. Screening and management rely on FRAX® and Dual-energy X-ray Absorptiometry (DXA) assessment, with bisphosphonates as first-line treatment. Adherence to screening, follow-up, and referral protocols remains unclear.

Objectives: Assess osteoporosis screening and management practices in Primary Health Care (PHC).

Materials/Methods: A cross-sectional study for screening and a retrospective study for osteoporosis patients were conducted across five Family Health Units. Inclusion criteria: individuals aged 50, women aged 65, and men aged 70 for screening, and patients diagnosed between 2013-2023 for the osteoporosis cohort. Exclusion criteria: deceased, pregnant women, and those under hospital care. Data were collected from medical records, stored anonymously, and statistically analyzed.

Results: Among 770 individuals aged 50, 99,6% lacked FRAX® registration. DXA was not requested for 87% (n=477) of women aged 65 and 97,2% (n= 326) of men aged 70. Among the osteoporosis cohort (n=679), 49,2% of patients diagnosed over two years prior had a follow-up DXA. Physician-advised bisphosphonate discontinuation occurred in 14,4% of cases, with appropriate decision-making in 61,5%. Patient-initiated bisphosphonate discontinuation, often inappropriate, was prevalent. Despite 16,9% of patients meeting referral criteria, 75,7% were not referred to Rheumatology.

Discussion/Conclusion: Screening underapplication with FRAX® and DXA were observed. Thus, professional development, protocols implementation, and FRAX® integration into PHC digital platforms are essential. Furthermore, the absence of osteoporosis follow-up dedicated appointments may contribute to low DXA requisitions. Therefore, patient education and enhanced collaboration between PHC and Rheumatology are needed.

219 - EXTRA-SKELETAL MANIFESTATIONS AND FUNCTIONAL OUTCOMES IN A COHORT OF ADULTS WITH OSTEOGENESIS IMPERFECTA: A RETROSPECTIVE STUDY FROM A RARE BONE DISEASE CLINIC

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Introduction: Osteogenesis imperfecta (OI) is a rare inherited disorder that primarily affects the skeletal system but is frequently associated with extra-skeletal manifestations which can significantly impair function and quality of life.1, 2 Adult patients with OI require comprehensive, multidisciplinary care targeting both bone and systemic complications.3 This study aimed to characterize the extra-skeletal manifestations in adult patients with OI followed at the Rheumatology Department of Coimbra's Local Health Unit, Portugal.

Methods: We conducted a retrospective, descriptive study, of adult patients followed at the Rare Bone Disease Clinic of our tertiary centre. Demographic and clinical features, functional status, and multidisciplinary follow-up were analysed. Data were extracted from clinical records. Statistical analysis was performed using SPSS software (version 29.0), with results expressed as frequencies, means, medians and interquartile ranges (IQR) as appropriate.

Results: Thirteen patients with OI were included (54% female), with a mean age of 43.1 ± 12.1 years, and a median age at diagnosis of 3.0 years (IQR: 11.8 years).

Most patients (61.5%) had type I OI, 23.1% had type III, and 15.4% had type IV.

Blue sclerae were the most common extra-skeletal manifestation (84.6%), followed by hearing loss (46%), with one case of mixed hearing loss. Dentinogenisis imperfecta was present in 38.5% of patients, and 23.1% presented ligamentous laxity.

Respiratory involvement was observed in two patients (15.4%), both with restrictive ventilatory pattern due to scoliosis and thoracic deformities. One patient had dilated aorta.

Frequent comorbidities included renal lithiasis (30.8%), active smoking (30.8%), arterial hypertension (23.1%) and diabetes mellitus (23.1%).

Functional disability was documented in 38.5% of the patients; however, 92% remained independent in daily living activities, albeit some required mobility aids.

Notably, 23% used a wheelchair, another 23.1% used adapted vehicles, only one patient used walking aids. Regarding employment status, all patients were employed except for one female patient, who was retired.

A total pf 84.6% were followed in more than one medical specialty. Rehabilitation Medicine follow-up was active in 38.5%, Otorhinolaryngology and Ophthalmology in 23.1%. Two patients (15.4%) were followed in Pulmonology and two others in Stomatology. Orthopaedic follow-up had previously been provided in 53.8%, mainly for post-fracture surgical care. Other specialties involved included Obstetrics, Gastroenterology, Cardiology and Psychiatry, based on individual needs.

Conclusion: In this cohort of adults with OI, extra-skeletal manifestations were highly prevalent and contributed to functional impairment and complex clinical needs. Despite a substantial rate of disability and comorbidities, most patients maintained functional independence and active employment, supported by multidisciplinary care and rehabilitation interventions.

These findings underscore the importance of systematic evaluation of extra-skeletal involvement and coordinated, patient-centred, management to optimise long-term outcomes in adult OI.

Furthermore, this real-world characterisation may support the development of structured follow-up protocols and local guidelines, and foster integration into international rare bone disease networks, contributing to shared standards of care and collaboration.

220 - RE-FRACTURE RATE AFTER HIP FRACTURE IN A TERTIARY CENTER: A PREMISE FOR THE CREATION OF A FRACTURE LIAISON SERVICE

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Background: Osteoporosis is a systemic skeletal dis-

220 – TABLE I. Characterization of patients with hip fragility fracture in ULS da Região de Leiria during 2019

	Total (n = 509)
Sex, n(%)	
Female	398 (78.2%)
Male	111 (21.8%)
Age, median (SD) years	83.04 (8.29)
[CI 95%]	[82.32 – 83.76]
All-cause mortality after 5 years, n(%)	322 (63.3%)
Previous fragility fracture, n(%)	81 (15.9%)
New fragility fracture, n(%)	98 (19.3%)
Total number of fragility fractures, n(%)	
1	340 (66.8 %)
2	120 (23.6%)
3	35 (6.9 %)
4	12 (2.4 %)
5	2 (0.4%)
Number of fragility fractures by type of fracture, n(%)	
Hip fracture	594
Distal radial fracture	33
Vertebral fracture	29
Proximal humerus fracture	35
Rib fracture	16
Number of patients treated with anti-osteoporotic drug, n(%)	
Before hip fracture	44 (8.6%)
Suspended treatment after hip fracture	26 (59.1%)
Maintained treatment after hip fracture	18 (40.9%)
After hip fracture	44 (8.6%)
No prior anti-osteoporotic drug use	26 (59.1%)
Prior anti-osteoporotic drug use	18 (40.9%)
Number of patients treated with oral calcium and/or vitamin D, n(%)	
Before hip fracture	62 (12.2%)
After hip fracture	92 (18.1%)
Number of patients that had a DEXA scan done, n(%)	
Before hip fracture	39 (7.7%)
After hip fracture	23 (4.5%)
Number of patients referred to a rheumatologist	4 (0.8%)

SD – standard deviation; CI 95% - 95% confidence interval for mean; n = absolute frequency; % - relative frequency (in percentage); DEXA - dual-energy x-ray absorptiometry

ease characterized by low mineral bone mass and microarchitectural deterioration of bone tissue, leading to bone fragility and susceptibility to fracture. Hip fracture (HF) is considered the most serious type of fragility fracture (FF) due to its high impact on morbidity and mortality. Since the risk of fracture is cumulative, secondary fracture prevention is critical, and the implementation of a Fracture Liaison Service (FLS) is a key strategy to address the current care gap.
Objective: To determine the re-fracture rate at 1 and 5 years following an index hip fracture in a tertiary center.
Methods: We conducted a cross-sectional study including all patients admitted to the emergency department of Unidade Local de Saúde da Região de Leiria in 2019 with a diagnosis of HF. Demographic and clinical data, including the occurrence of new FF at 1 and 5 years post-index fracture, were collected from medical records. Descriptive analysis was used to summarize the data; categorical variables were reported as frequencies and continuous variables as means with standard deviations. Re-fracture rates at 1 and 5 years were calculated. The occurrence of re-fractures was compared between patients with and without anti-osteoporotic treatment after the initial HF, using Chi-square test. Statistical analysis was performed using SPSS Statistics v30, and $p<0.05$ was considered statistically significant.
Results: A total of 509 patients with HF were identified (78.2% female; mean age 83.0 ± 8.29 years). All-cause mortality after 5 years was 63.3%. Sociodemographic and clinical characteristics are summarized in Table 1. 15.9% had history of previous FF. Re-fracture rates at 1 and 5 years following the index fracture were 5.7% and 16.3%, respectively. Mean time to re-fracture was 29.1 ± 20.3 months. Only 0.8% were referred to a rheumatology appointment after HF. We found no statistically significant differences between the occurrence of new FF in patients with or without anti-osteoporotic treatment after initial HF ($X2 = 0.096$; $p = 0.757$).
Conclusion: The observed re-fracture rates at 1 and 5 years highlight a substantial risk of subsequent fractures following a primary HF. These findings support the urgent need for prevention fractures, including structured secondary prevention strategies, such as the implementation of a FLS, to optimize post-fracture care and reduce the burden of osteoporotic fractures.

221 - RARE BONE DISEASES IN ADULTS: A RETROSPECTIVE STUDY OF 13 CASES OF OSTEOGENESIS IMPERFECTA

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Introduction: Osteogenesis Imperfecta (OI) is a rare connective tissue disorder characterised by bone fragility, often presenting as multiple spontaneous fractures, and multisystemic manifestations. This study describes the clinical, demographic and therapeutic approaches of patients with OI in a dedicated Rare Bone Disease Clinic.
Methods: We conducted a retrospective review of adult patients with a confirmed diagnosis of OI followed at the Rheumatology Department. Demographic data, clinical manifestations (skeletal and extra-skeletal), functional status, complications and therapies were collected. Statistical analysis was performed using SPSS software (version 29.0), with results expressed as frequencies, means, medians and interquartile ranges (IQR) as appropriate.
Results: Thirteen patients were included, 54% (n = 7) were female, with a mean age of 43 ± 12.1 years. Most patients (n = 8; 61.5%) were classified as having type I OI, with three patients (23.1%) having type III and two (15.4%) type IV. Genetic testing was performed in ten patients, all of whom carried variants in the COL1A1 gene. The median age at diagnosis was 3 years (IQR: 1.0 to 19.5).

All patients initially presented with fractures, and short stature was reported in six cases (46.2%). The most frequent location of the fractures was the lower or upper limbs (n=12, 92.3%), with the number of fractures ranging widely from 1 to 48. 92.3% (n= 12) of the patient population showed one or more deformities. Specifically, kyphosis and scoliosis were each observed in eight patients (61.5%), lower limb bowing in seven patients (53.8%), and upper limb bowing in five patients (38.5%). A known family history of OI was documented in six patients (46.2%).

The most common extra-skeletal feature was blue sclerae (n = 11; 84.6%), followed by hearing loss (n = 6; 46.2%). Bone mineral density data were available for 11 patients, the median femoral neck T-score was -2.45 (IQR: -3.25 to -2.10) and for the lumbar spine was -3.15 (IQR: -4.35 to -1.80). Data of Z-scores were incomplete and not available for all patients. Eight patients (61.5%) received bisphosphonate in adulthood, four zoledronate and the other four alendronate. Two patients (15.4%) were treated with denosumab, and one (7.7%) received teriparatide.

Chronic pain was reported in eight patients (61.5%), and four (30.8%) required mobility aids. 84.6% of the patients had multidisciplinary follow-up, mainly with

Physical Medicine and Rehabilitation, Otorhinolaryngology and Ophthalmology.

Discussion and Conclusion: This case series highlights the clinical heterogeneity of OI and the importance of multidisciplinary, long-term care. Notably, two patients were only diagnosed, and two others initiated follow-up, after age 18 — underscoring the need for improved transition and early referral strategies in adult care. As most of the existing literature focuses on paediatric populations, documenting and maintaining specialized follow-up in adulthood is essential to address the persistent skeletal and functional burden of the disease.

226 - FATORES ASSOCIADOS A MORTALIDADE E FRATURA EM DOENTES COM OSTEOPOROSE - UM ESTUDO RETROSPETIVO

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Introdução: A osteoporose é uma doença crónica associada a elevada morbimortalidade. A identificação de

226 – TABELA 1. Caracterização da amostra utilizada no estudo observacional retrospetivo

Variável	Total (n=150)	p-value (outcome morte)	p-value (outcome fratura)
Sexo feminino (n, %)	130 (86.7%)		
Idade, anos (média, DP)	75.6, ±10.1		
IMC, kg/m² (média, DP)	26.0, ±4.7		
Tempo de seguimento, meses (média, DP)	42.9, ±17.3		
Número de mortes (n, %)	15, 10.0%		
Número de fraturas (n, %)	9, 6.0%		
Com terapêutica antiosteoporótica prévia (n, %)	57 (38.0%)	p=0.4109*	p=1.000*
- Bifosfonato oral	34 (22.7%)	p=0.5169**	p=0.7426**
- Bifosfonato EV	19 (12.7%)	p=0.6628**	p=1.000**
- Teriparatide	3 (2.0%)	p=0.8245**	p=0.5257**
- >1 terapêutica prévia	1 (0.7%)	p=1.000**	p=1.000**
Iniciaram terapêutica antiosteoporótica (n, %)	141 (94.0%)	p=1.000*	p=1.000*
- Denosumab	56 (37.3%)	p=1.000**	p=0.9359**
- Bifosfonato EV	40 (26.7%)	p=1.000**	p=0.9374**
- Bifosfonato oral	36 (24.0%)	p=1.000**	p=1.000**
- Teriparatide	2 (1.3%)	p=1.000**	p=1.000**
- >1 terapêutica ao longo do seguimento	7 (4.7%)	p=1.000**	p=1.000**
Iniciaram suplementação (n, %)	140 (93.3%)	p=0.2624*	p=0.4721*
- Vitamina D	74 (49.3%)	p=0.7474**	p=0.7954**
- Vitamina D + cálcio	60 (40.0%)	p=0.5692**	p=1.000**
- Cálcio	6 (4.0%)	p=0.6963**	p=1.000**
Comorbilidades (n, %)			
- Doença reumatológica inflamatória	54 (36.0%)	p=0.003*	p=0.071*
- Doença renal crónica (TFG <30 mL/min/1.73m2)	10 (6.7%)	p= 0.031*	p=1.000*
- Doença pulmonar crónica	38 (25.3%)	p= 0.035*	p=1.000*
- Doença neurológica	30 (20.0%)	p= 0.502*	p=0.384*
- Doença psiquiátrica	32 (21.3%)	p=0.789*	p=1.000*
- Corticoterapia crónica (>5mg/dia durante >3 meses)	49 (32.7%)	p=0.252*	p=0.066*

*Teste exato de Fisher, **Teste de Qui Quadrado.

comorbilidades e estratégias terapêuticas associadas a piores desfechos poderá permitir a otimização da abordagem clínica destes doentes.
Objetivo: Avaliar a associação de comorbilidades e terapêuticas com os outcomes "mortalidade" e "fraturas", em doentes com osteoporose.
Métodos: Estudo observacional retrospetivo de doentes com osteoporose seguidos em consulta de Reumatologia – Doenças Osteometabólicas. Foram analisadas comorbilidades (doença reumatológica inflamatória, doença pulmonar crónica, doença neurológica, doença psiquiátrica, doença renal crónica com TFG <30 mL/min/1,73m2 e corticoterapia crónica), terapêuticas anti-osteoporóticas prévias e atuais e uso ou não de suplementação (vitamina D, cálcio ou ambos). A análise estatística foi realizada através dos testes exato de Fisher e Qui-Quadrado.
Resultados: Foram incluídos 150 doentes no estudo. A caracterização da amostra encontra-se representada na tabela 1. No período analisado, 9 doentes (6,0%) sofreram fraturas e 15 (10,0%) faleceram. Para o outcome "fraturas", nenhuma variável apresentou associação estatisticamente significativa, embora a corticoterapia crónica tenha demonstrado uma tendência, mas sem alcançar significância (p= 0,066, teste exato de Fisher). Quanto ao outcome "mortalidade", observaram-se associações estatisticamente significativas com a doença reumatológica inflamatória (p= 0,003, teste exato de Fisher), doença pulmonar crónica (DPC) (p=0,035, teste exato de Fisher) e doença renal crónica (DRC) (p=0,031, teste exato de Fisher). A presença e tipo de tratamento anti-osteoporótico prévio ou instituído durante seguimento, bem como o uso e tipo de suplementação (vitamina D, cálcio ou ambos), não se associaram aos outcomes estudados.
Discussão: A associação entre doença reumatológica inflamatória e mortalidade pode ser explicada pela presença de inflamação sistémica, risco cardiovascular aumentado, uso de terapêuticas imunossupressoras, fragilidade óssea e alterações de mobilidade sequelares. A DPC, ao associar-se a limitação funcional, hipoxemia crónica e infeções respiratórias de repetição, também poderá justificar aumento da mortalidade. A DRC sugere um estado de vulnerabilidade e disfunção sistémicas que transcende o osso. A ausência de benefício estatisticamente significativo das terapêuticas pode refletir limitações metodológicas, tais como o tamanho da amostra, viés de seleção (tratamentos mais intensivos instituídos a doentes com noção de maior gravidade basal) e variabilidade na adesão, duração e resposta à terapêutica instituída.
Conclusão: A presença de comorbilidades como doenças reumatológicas inflamatórias, DPC e DRC, associou-se ao outcome "mortalidade". Estes resultados realçam a importância de uma abordagem individualizada e multidimensional, bem como a necessidade de estudos prospetivos que orientem estratégias terapêuticas mais eficazes.

230 - ANTI-SSA, ANTI-SSB AND ANTI-RO52 IN SYSTEMIC SCLEROSIS: MORE THAN JUST SICCA?

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Introduction: Anti-SSA, anti-SSB, and anti-Ro52 antibodies (atbs) are commonly associated with sicca symptoms and overlap syndromes in systemic autoimmune diseases. In systemic sclerosis (SSc), their clinical relevance remains less well defined. While their association with dryness symptoms is expected, emerging evidence suggests these atbs, particularly anti-Ro52, may signal broader systemic involvement. This study aimed to explore the clinical and immunological profiles of SSc patients according to the presence of anti-SSA, anti-SSB, and anti-Ro52 atbs.
Methods: We conducted a cross-sectional study of 187 SSc patients fulfilling the 2013 ACR/EULAR classification criteria, enrolled in a tertiary rheumatology center. Sociodemographic, clinical, serological, and disease-related features were compared between antibody-positive and -negative groups for anti-SSA, anti-SSB, and anti-Ro52. Associations were analyzed using Chi-square or Fisher's exact test.
Results: The study population was predominantly female (85.6%), White European (98.4%), with a mean age of 52.5 ± 13.3 years. Most had limited cutaneous SSc (79.1%), and 12.3% had overlap syndromes. Raynaud's phenomenon was almost universal (96.8%), and the most common autoantibodies were anticentromere (62.6%) and anti-Scl70 (21.9%).

Anti-SSA was present in 9.1%, anti-SSB in 2.7%, and anti-Ro52 in 11.2% of patients. All three atbs were strongly associated with sicca symptoms, including dry mouth and dry eyes ($p < 0.001$). Anti-SSA and anti-SSB atbs were also associated with overlap syndromes ($p < 0.001$ and $p = 0.007$, respectively), particularly anti-SSA atbs, which were most often associated with Sjögren's disease. Anti-Ro52 atbs showed a significant association with myositis (14.3% vs. 3.6%, $p = 0.047$), suggesting a link with muscular involvement in SSc. No associations were found between these atbs and digital ulcers, calcinosis, internal organ involve-

230 – TABLE 1. Sociodemographic, clinical, serological and disease-related features in patients with systemic sclerosis (SSc), according to the presence of anti-SSA, anti-SSB and anti-Ro52 antibodies.

	All patients (*n* =187)	SSA+ (n=17)*	*p*	SSB+ (n=5)*	*p*	Ro-52+ (n=21)*	*p*
Age (years)* - mean±SD	52.5±13.3	54.9±12.5	0.397	57.1±18.4	0.586	55.7±9.9	0.271
Sex - n (%)			**0.022**		0.155		0.740
Female	160 (85.6)	11 (64.7)		3 (60.0)		19 (90.5)	
Male	27 (14.4)	6 (35.3)		2 (40.0)		2 (9.5)	
Race - n(%)			1.000		1.000		1.000
White european	184 (98.4)	17 (100)		5 (100)		21 (100)	
White hispanic	3 (1.6)	0 (0.0)		0 (0.0)		0 (0.0)	
Classification Criteria ACR/EULAR 2013 - n(%)	100 (100.0)						
Disease subtype - n(%)			**<0.001**		**0.007**		**0.055**
Limited cutaneous scleroderma	148 (79.1)	6 (35.3)		0 (0.0)		13 (61.9)	
Overlap syndrome	23 (12.3)	10 (58.8)		5 (100)		7 (33.3)	
Sjogren's disease	13 (7.0)	8 (47.1)		5 (100)		5 (23.8)	
Systemic lupus eruthematous	4 (2.1)	1 (5.9)		0 (0.0)		1 (4.8)	
Rheumatoid arthiritis	3 (1.6)	1 (5.9)		0 (0.0)		0 (0.0)	
Myositis	3 (1.6)	1 (5.9)		0 (0.0)		2 (9.5)	
Sinescleroderma	5 (2.7)	0 (0.0)		0 (0.0)		1 (4.8)	
Diffuse scleroderma	10 (5.3)	1 (5.9)		0 (0.0)			
Antinuclear antibodies - n(%)			**0.006**		0.240		0.206
Centromere	117 (62.6)	7 (41.2)		3 (60.0)		13 (61.9)	
Nuclear fine speckled	18 (9.6)	5 (29.4)		2 (40.0)		4 (19.0)	
Nucleolar	16 (8.6)	3 (17.6)		0 (0.0)		1 (4.8)	
Homogeneous	19 (10.2)	0 (0.0)		0 (0.0)		0 (0.0)	
SSc related antibodies - n(%)							
Anticentromere	117 (62.6)	8 (47.1)	0.189	3 (60.0)	1.000	14 (66.7)	0.621
CENP-A*	63 (33.7)	3 (17.6)	0.447	1 (20.0)	0.570	13 (61.9)	0.296
CENP-B*	68 (36.4)	3 (17.6)	0.420	1 (20.0)	0.554	14 (66.7)	0.186
Anti-Scl70*	41 (21.9)	6 (35.3)	0.225	1 (20.0)	1.000	1 (4.8)	0.076
Anti-PM/Scl*	8 (4.3)	1 (5.9)	1.000	0 (0.0)	1.000	3 (14.3)	0.130
Anti-Th/To*	5 (2.7)	1 (5.9)	0.285	1 (20.0)	0.131	1 (4.8)	0.520
Anti-Ku*	3 (1.6)	0 (0.0)	1.000	0 (0.0)	1.000	1 (4.8)	0.431
Anti-RNA polymerase III*	4 (2.1)	0 (0.0)	1.000	0 (0.0)	1.000	0 (0.0)	1.000
Skin fibrosis - n(%)	169 (90.4)	16 (94.1)	0.368	4 (80.0)	1.000	20 (95.2)	0.693
Talengiectasias - n(%)	117 (62.6)	10 (58.8)	0.794	3 (60.0)	1.000	10 (47.6)	0.229
Raynaud - n(%)	181 (96.8)	16 (94.1)	0.444	5 (100)	1.000	21 (100)	1.000
DU - n(%)	65 (34.8)	7 (41.2)	0.601	2 (40.0)	1.000	8 (38.1)	0.635
Calcinosis - n(%)	31 (16.6)	2 (11.8)	1.000	1 (20.0)	0.504	1 (4.8)	0.200
Arthritis - n(%)	70 (37.4)	7 (41.2)	0.568	2 (40.0)	0.629	7 (33.3)	0.627
Myositis - n(%)	9 (4.8)	2 (11.8)	0.151	1 (20.0)	0.168	3 (14.3)	**0.047**
Esophageal involvment - n(%)	86 (45.9)	8 (47.1)	0.789	1 (20.0)	1.000	10 (47.6)	0.714
Pulmonary involvment - n(%)	47 (25.1)	7 (41.2)	0.143	1 (20.0)	1.000	6 (28.6)	0.852
Cardiac involvment - n(%)	11 (5.9)	3 (17.6)	**0.068**	0 (0.0)	1.000	2 (9.5)	0.615
Renal involvment - n(%)	3 (1.6)	1 (5.9)	0.352	0 (0.0)	1.000	0 (0.0)	1.000
Dry mouth - n (%)	31 (16.6)	11 (64.7)	**<0.001**	5 (100)	**<0.001**	13 (61.9)	**<0.001**
Dry eyes - n (%)	23 (12.3)	8 (47.1)	**<0.001**	4 (80.0)	**0.001**	8 (38.1)	**<0.001**

Footnote: DU - digital ulcers; SSc - systemic sclerosis; SD - Standard deviation. **Missing values: 2 for anti-SSA and anti-SSB, 32 for anti-Ro52, 16 for ANA pattern, 1 for anti-centromere, 5 for anti-Scl70, 70 for CENP-A, CENP-B, anti-PM-Scl, anti-Th/To, anti-Ku*

ment, or most SSc-specific atbs.

Discussion: These findings confirm that anti-SSA, anti-SSB, and anti-Ro52 atbs are markers of sicca features in SSc, but also highlight that anti-Ro52 atbs may indicate a broader disease expression, particularly myositis. The association with muscle involvement underscores the need for closer clinical monitoring of patients with anti-Ro52 atbs, even in the absence of classical overlap syndromes. While the small number of antibody-positive patients and missing Ro52 data limited statistical power, the results warrant further investigation. Larger, prospective cohorts with complete serological data are

needed to validate these findings and clarify the prognostic implications of anti-Ro52 atbs in SSc.

232 - COMPARISON OF DISEASE FEATURES BETWEEN PRIMARY AND SECONDARY ANTIPHOSPHOLIPID SYNDROME: A RETROSPECTIVE ANALYSIS OF 81 PATIENTS FOLLOWED AT A TERTIARY CENTER

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Introduction: Antiphospholipid syndrome (APS) is a systemic autoimmune disorder characterized by the occurrence of thrombosis, pregnancy morbidity and/or nonthrombotic manifestations in individuals with persistent antiphospholipid antibodies (aPL). Our primary aim was to compare disease features between primary and secondary APS.
Methods: We conducted a retrospective observational study including patients with APS followed at the Rheumatology Department of Coimbra University Hospital. Patients were included if they had a clinical diagnosis established by a rheumatologist.

We collected demographic, clinical, laboratory and therapeutic data through medical record review, covering patients followed between 1999 and 2025. Patients were grouped into primary or secondary APS, and intergroup differences were analysed.
Results: A total of 81 patients were included: 82.7% female, and mean age at diagnosis was 39.6 years. Primary APS affected 54.3% of patients, while the remainder had APS associated with systemic lupus erythematosus (37.0%) or other autoimmune diseases (8.6%; n= 7), such as undifferentiated connective tissue disease, rheumatoid arthritis or microscopic polyangiitis.

A total of 66.7% of patients fulfilled the Sapporo criteria, of whom 42.6% also met the 2023 ACR/EULAR criteria. No patient fulfilled the ACR/EULAR criteria alone.

Thrombotic events were the most frequent clinical manifestations: venous in 60 patients, arterial in 24 and microvascular in 3. Obstetric morbidity affected 19.4% of women, mainly early pregnancy loss, followed by premature births due to placental dysfunction, and fetal deaths beyond 10 weeks' gestation.

Venous thrombosis most frequently involved deep veins, pulmonary arteries and cerebral venous sinuses, but also splanchnic, hepatic and inferior vena cava territories. Some patients had recurrent vascular access thrombosis or superficial vein involvement.

Arterial events included stroke, acute coronary syndrome, central retinal artery occlusion and thrombosis of renal, splenic and peripheral arteries.

Microvascular involvement comprised thrombotic microangiopathy with acute kidney injury and recurrent diffuse alveolar haemorrhage. Libman-Sacks endocarditis was observed in two patients.

Among patients with available data, lupus anticoagulant was detected in 88.9%, anti-β2 glycoprotein I antibodies in 49.4%, and anticardiolipin antibodies in 46.9%. Triple positivity was observed in 39.5%. Anti-phosphatidylserine antibodies were tested in 29 patients, with a positivity rate of 27.6%.

The mean age at diagnosis was significantly higher in primary APS (44.2 ± 15.8 vs. 31.7 ± 13.9 years; $p = 0.001$), with a large effect size ($d = 0.82$). The median time to diagnosis was 1 year in primary APS and 0 in secondary APS, being significantly longer in primary APS ($p = 0.022$). In contrast, no statistically significant differences were found between groups regarding sex distribution, clinical features, or aPL profile.

Cardiovascular risk factors and hereditary thrombophilia were also assessed as potential contributors to thrombosis.
Discussion: This study identifies a diagnostic delay in patients with primary as compared with secondary APS that needs to be improved. Current classification criteria are intended to be used as inclusion criteria for clinical trials, but present a low sensitivity for APS diagnosis.

237 - CLINICAL AND IMMUNOLOGICAL FEATURES OF INFLAMMATORY MYOPHATIES WITH ARTHRITIS: RESULTS FROM A PORTUGUESE TERTIARY CENTER

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Background: Idiopathic inflammatory myopathies (IIM) are a complex group of diseases characterized by a wide spectrum of muscle and extramuscular features. Arthritis in IIM is frequent, and its presentation is variable and non-specific, usually non-erosive polyarthritis (1). However, there is scarce systematic literature data regarding arthritis in IIM (2).
Objectives: To characterize IIM-associated arthritis in patients in our centre and identify associated features.
Methods: We performed a cross-sectional study in our tertiary centre including IIM patients fulfilling the ACR/EULAR 2017 classification criteria for IIM and/or

237. TABLE I. Baseline characteristic of our inflammatory myopathies cohort and stratified according to the presence of arthritis.

Variables	Whole Cohort (n =68) (100%)	Without arthritis (n = 38) (55.9%)	With arthritis (n = 30) (44.1%)
Age at time of study median (IQR)	59.7 (29.3)	67.2 (29.4)	54.4 (24.2)
Age at diagnosis median (IQR)	45.0 (25.7)	51.9 (28.1)	40.6 (21.6)
Sex female (%)	45 (66.2)	28 (73.7)	17 (56.7)
Race n (%)			
White European	66 (97.0)	37 (97.4)	29 (96.7)
Black African	1 (1.5)	1 (2.6)	0 (0)
South Asian	1 (1.5)	0 (0)	1 (3.3)
Myositis subgroups n (%)			
Dermatomyositis	22 (32.3)	13 (34.2)	9 (30.0)
Polymyositis	15 (22.1)	10 (26.3)	5 (16.7)
Mixed connective tissue disease	9 (13.2)	3 (7.9)	6 (20.0)
Anti-synthetase syndrome	15 (22.1)	8 (21.1)	7 (23.3)
Overlap myositis/scleroderma	7 (10.3)	4 (10.5)	3 (10.0)

237. TABLE II. Comparison between groups with and without joint involvement in our inflammatory myopathies cohort.

Variables	Whole Cohort (n =68) (100%)	Without arthritis (n = 38)(55.9%)	With arthritis (n = 30) (44.1%)	p-value
Age at time of study (years) median (IQR)	59.7 (29.3)	67.2 (29.4)	54.4 (24.2)	0.251
Age at diagnosis (years) median (IQR)	45.0 (25.7)	51.9 (28.1)	40.6 (21.6)	0.029
Diagnosis delay (years) median (IQR)	0.9 (2.5)	0.5 (1.8)	1.0 (2.2)	0.040
Sex female (%)	45 (66.2)	28 (73.7)	17 (56.7)	0.198
Clinical features n (%)				
Proximal weakness	52/68 (76.5)	25/38 (65.8)	22/30 (73.3)	0.601
Myalgia	43/67 (64.2)	22/38 (57.9)	21/29 (72.4)	0.305
Constitutional symptoms	40/67 (59.7)	23/37 (62.2)	17/30 (56.7)	0.803
Skin Involvement	28/68 (41.2)	17/38 (44.7)	11/30 (37.7)	0.621
Gastrointestinal involvement	18/68 (26.5)	9/38 (23.7)	9/30 (30.0)	0.590
Pulmonary Involvement	32/67 (47.8)	15/38 (39.5)	17/29 (58.6)	0.144
Cardiac Involvement	2/68 (2.9)	2/38 (5.3)	0/30 (0.0)	0.500
Raynaud's phenomenon	29/67 (43.3)	12/38 (31.6)	17/30 (56.7)	0.046
Scleroderma pattern on nailfold capillaroscopy	23/29 (79.3)	10/12 (83.3)	13/17 (76.5)	0.968
Laboratory findings (at diagnosis) median (IQR)				
Creatine kinase (U/L) (n = 49/68)	660 (1224)	501 (1039) (n = 29/38)	1017.5 (2532) (n = 20/30)	0.617
Aldolase (U/L) (n = 49/68)	10.9 (19.7)	9.5 (11.7) (n = 29/38)	23.1 (37.6) (n = 20/30)	0.015
Aspartate transaminase (U/L) (n = 49/68)	47 (51)	47 (43) (n = 29/38)	44 (121) (n = 20/30)	0.716
Lactate dehydrogenase (U/L) (n = 49/68)	392 (254.5)	383 (226) (n = 29/38)	445.5 (626) (n = 20/30)	0.640
Elevated acute phase reactants n (%)	37/62 (59.7)	18/34 (52.9)	19/28 (67.9)	0.301
Immunological Features n (%)				
Rheumatoid factor	11/54 (20.4)	5/28 (17.9	6/26 (23.1)	0.741
Anti-nuclear auto-antibodies	53/68 (77.9)	30/38 (78.9)	23/30 (76.7)	1.000
Anti cytoplasmatic auto-antibodies	8/68 (11.8)	3/38 (7.9)	5/30 (16.7)	0.451

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237. TABLE II. Continuation

Variables	Whole Cohort (n =68) (100%)	Without arthritis (n = 38)(55.9%)	With arthritis (n = 30) (44.1%)	p-value
Myositis specific/associated auto-antibodies*	38/67 (56.7)	22/38 (57.9)	16/29 (55.2)	1.000
Anti SSA				
Anti-RNP	20/67 (29.9)	11/38 (28.9)	9/29 (31.0)	1.000
Anti-Jo1	10/67 (14.9)	4/38 (10.5)	6/29 (20.7)	0.309
Anti Mi2	9/67 (13.4)	4/38 (10.5)	5/29 (17.2)	0.485
Anti PL-7	5/67 (7.5)	4/38 (10.5)	1/29 (3.4)	0.379
Anti PMScl	5/67 (7.5)	3/38 (7.9)	2/29 (6.9)	1.000
Anti-Ku	5/67 (7.5)	2/38 (5.3)	3/29 (10.3)	0.645
Anti PL-12	4/67 (6.0)	2/38 (5.3)	2/29 (6.9)	1.000
	4/67 (6.0)	2/38 (5.3)	2/29 (6.9)	1.000
Previous or current treatments n (%)				
Prednisolone	64/67 (95.5)	36/38 (94.7)	28/29 (96.6)	1.000
Immunosuppression**	60/68 (88.2)	31/38 (81.6)	29/30 (96.7)	0.069
Hydroxychloroquine	19/67 (28.4)	10/38 (25.3)	9/29 (31.0)	0.786
Methotrexate	24/68 (35.3)	15/38 (39.5)	9/30 (30.0)	0.454
Azathioprine	21/67 (31.3)	9/38 (23.7)	12/29 (41.4)	0.184
Mofetil mycophenolate	14/67 (20.9)	7/38 (18.4)	7/29 (24.1)	0.766
Rituximab	9/67 (13.4)	5/38 (13.2)	4/29 (13.8)	1.000
Cyclophosphamide	8/68 (11.8)	3/38 (7.9)	5/30 (16.7)	0.451
Intravenous immunoglobulin	9/67 (13.4)	6/38 (15.8)	3/29 (10.3)	0.721
Comorbidities n (%)				
Smoking	7/42 (16.7)	4/23 (17.4)	3/19 (15.8)	1.000
Cardiovascular risk factors***	31/53 (58.5)	20/31 (95.2)	11/22 (50.0)	0.398
Fatalities n (%)				
Death due to any cause	9/68 (13.2)	4/38 (10.5)	5/30 (16.7)	0.493
Death attributable to myositis	3/68 (4.4)	0/38 (0.0)	3/30 (10.0)	0.081

*Namely: anti-Ku, anti Mi2, anti JO1, anti PL7, anti PL12, anti Scl70, anti MSA1, anti SSA, anti PMScl antiboides; **Not considering prednisolone or hydroxychloroquine; ***Namely: arterial hypertension, obesity, dyslipidaemia, diabetes mellitus or thrombotic events

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Alarcon-Segovia diagnostic criteria for mixed connective tissue disease (MCTD). We excluded patients with inclusion body myositis or necrotizing myositis. We retrospectively collected demographic features, clinical manifestations, comorbidities, treatment, and immunological characteristics from records and compared between groups with or without arthritis. We defined arthritis attributable to IIM, as joint effusion ascertained by clinical assessment and/or presence of synovitis in ultrasound during follow-up. The continuous variables were described as means or medians, according to distribution. Statistical analysis was performed by IBM SPSS Statistics for Windows (Version 29.0). The Chi-squared test/Fisher test and Mann–Whitney U-test were used to compare categorical and continuous variables, respectively. We considered a p-value < 0.05 as significant.

Results: A total of 68 IIM patients were included [female: 66.2%, median age 59.7 (IQR 29.3) years]. The demographic characteristics of our cohort is presented in Table 1. IIM-associated arthritis occurred in 30/68 (41.1%) patients at baseline. The most common presentation of arthritis was symmetric, peripheral polyarthritis (90%), involving the small joints of the hands, and occasionally elbows, knees and ankles. Three cases (10%) presented as oligoarthritis affecting the wrists or knees. Only one patient presented with erosions. Rheumatoid factor was known in n = 54 cases, and it was positive in n = 6 patients with arthritis and n = 5 patients without arthritis. In all n = 27 cases where anti-citrullinated protein antibodies status was known, all were negative. The group with arthritis showed a younger age at diagnosis (40.6 vs 51.9 years, p = 0.029), a longer delay from first symptoms until diagnosis (1.0 vs 0.5 years, p = 0.04), and a higher frequency of some clinical features, namely, Raynaud's phenomenon

(56.7% vs 31.6%, p=0.046) and higher aldolase values at diagnosis (23.1 vs. 9.5 U/L, p=0.015). Although not statistically significant, a considerable numerical difference was observed regarding use of immunosuppressants (96.7% vs 81.6%). All deaths by organ failure from damage attributable to myositis (i.e., respiratory failure in patients with lung involvement) occurred in the group with arthritis. Assessed individually, no significant differences were found regarding treatment with immunosuppressive drugs, including methotrexate and prednisolone. Furthermore, no other statistically significant differences were found between the groups concerning clinical manifestations, immunological and laboratorial characteristics (Table 2).
Conclusion: In our cohort, arthritis was reported in 44.1% of our 68 patients with IIM. These patients showed a higher frequency of Raynaud's phenomenon, higher aldolase levels at diagnosis and younger age at diagnosis. This study raises awareness about the relevance of arthritis in IMM patients, supporting Screening for arthritis alongside major organ involvement.

239 - OSTEOPOROSE: PARA ALÉM DO OSSO – CARACTERIZAÇÃO DE UMA POPULAÇÃO COMO BASE PARA A OTIMIZAÇÃO DOS CUIDADOS DE SAÚDE

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Introdução: A Osteoporose (OP) é uma condição prevalente, debilitante e tratável, contudo subdiagnosticada, estimando-se que em Portugal afete cerca de 10% homens e 40% mulheres com mais de 50 anos, aumentando substancialmente o risco de fraturas. Estas fraturas estão associadas a elevada morbi-mortalidade, além de elevados custos económicos e sociais (cerca de 1 milhar de milhão de euros em 2019). A OP é uma doença sistémica, intimamente associada a um aumento do risco cardiovascular, a calcificação vascular e a doença renal crónica (DRC). Apesar da sua importância, existe uma lacuna na caracterização e seguimento destes doentes afetando a sua qualidade de vida, com impacto significativo em termos de saúde pública, reflectindo-se nos elevados custos envolvidos.

Objetivos: Identificar utentes com a codificação de OP, inscritos numa Unidade de Saúde Familiar, caracterizando-os segundo sexo/idade, comorbilidades [cardiovasculares, diabetes mellitus (DM), DRC], fraturas e obesidade.
Metodologia: Estudo observacional e transversal. População com codificação de OP entre os 40 e os 90 anos. Dados recolhidos através do processo clínico eletrónico (acesso pelas plataformas SClinico® e MIM@UF) entre janeiro-abril/2025. Estatística efetuada em Excel.
Resultados: Foram identificados 499 doentes com codificação de OP registado no processo clínico (90,98% do sexo feminino). A mediana de idades foi de 72 anos. Destes 56.91% são hipertensos, 18.44% diabéticos, 27.45% tem algum grau de DRC, 7.62% têm doença respiratória (a mais comum Asma), 11.62% são obesos e existe cerca 50% das codificações sem uma densitometria inicial. Observou-se que 19.64% tinham pelo menos 1 fratura, sendo a do punho a mais comum. Nas mulheres a comorbilidade mais comum é a hipertensão (55.51%), seguida de DRC (27.53%) e de DM (17.18%). Verifica-se que 18.94% das mulheres com codificação OP tinham pelo menos uma fratura. Nos homens, a comorbilidade mais prevalente é também a hipertensão (71.11%), seguida de DM (31.11%) e da DRC (26.67%). Existem 26.67% de homens com codificação de OP e pelo menos uma fratura. Existem ainda 586 fraturas codificadas, mas destas apenas 17% correspondem a doentes com codificação de OP.
Discussão/Conclusão: Estes resultados permitem-nos verificar que a OP afeta mais as mulheres pós-menopausa e está subdiagnosticada. Verifica-se uma prevalência elevada de hipertensão nestes doentes com codificação de OP, o que está de acordo com estudos prévios, que sugerem uma associação da OP com calcificação vascular e risco cardiovascular. Mais de um quarto dos doentes com codificação OP têm algum grau de DRC. A associação entre a OP e DRC é conhecida, sendo a densitometria importante na identificação dos doentes DRC com maior risco de fratura. A avaliação da codificação das fraturas, parece sugerir um subdiagnóstico da OP nos doentes que fraturam. A análise preliminar dos dados, permite-nos inferir que, com vista à contribuição de uma "saúde sustentável", torna-se clara a necessidade de uma estratégia mais definida, na identificação correta, precoce e no seguimento destes doentes. Com base nestes dados, sugere-se que nas consultas semestrais dos hipertensos (por exemplo), se possa criar a oportunidade para o diagnóstico precoce da OP, nomeadamente com a aplicação do FRAX Port®. Simples estratégias, com o objetivo de obter uma melhoria substancial da qualidade dos cuidados de saúde prestados a estes doentes, nos cuidados de saúde primários.

243 - HYPERTROPHIC OSTEOARTHROPATHY: JUST THE TIP OF THE ICEBERG IN A CHALLENGING CASE SERIES

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Introduction: Hypertrophic osteoarthropathy (HOA) is an uncommon syndrome characterised by digital clubbing, periostosis of long bones, and joint complaints, often secondary to serious systemic diseases such as intrathoracic malignancies. Despite its distinct clinical features, HOA is frequently under-recognised. Given that patients are often first evaluated in Rheumatology, early identification of HOA can be crucial for prompt diagnosis of underlying conditions. We present a series of three cases of secondary HOA with diverse aetiologies, underscoring the importance of clinical suspicion in guiding appropriate investigation.
Case descriptions:
Case 1: A 29-year-old man presented with a four-month history of migratory inflammatory arthralgia involving the wrists, knees and ankles, responsive to corticosteroids initiated in the emergency department. On examination, no clinical arthritis was detected, but poorly defined erythematous and warm lesions were observed on the lower limbs, suggesting erythema nodosum. Mild digital clubbing was also noted. Initial work-up revealed elevated inflammatory markers and thrombocytosis. Imaging studies showed cortical thickening of the tibia on leg X-ray and a right hilar enlargement on chest X-ray. A subsequent positron emission tomography (PET) scan demonstrated multiple hypermetabolic intra- and extrathoracic lymphadenopathies, raising suspicion for sarcoidosis or lymphoproliferative disease. Excisional biopsy of a cervical lymph node confirmed sarcoidosis. The patient improved over time without the need for immunosuppression, remaining under follow-up.
Case 2: A 50-year-old female smoker presented with generalized inflammatory arthralgia and long bone pain, as well as progressive deformity of the digits over the past three months. She reported significant unintentional weight loss. Examination revealed digital clubbing of all fingers and toes and arthritis of the knees and ankles. Bone scintigraphy showed increased radiotracer uptake in the long bones, most notably in the femurs and radii. Chest CT revealed a large pulmonary mass, and transthoracic biopsy confirmed lung adenocarcinoma. Additional imaging identified cerebral metastases, and the patient ultimately died.
Case 3: A 54-year-old female smoker presented with polyarthralgia affecting the hands, knees, ankles and feet, and progressive digital deformities over the preceding year. She also reported chronic cough and significant weight loss. Her past medical history included a suspicious pulmonary nodule identified 10 years earlier, for which she declined biopsy. Examination revealed digital clubbing of the fingers and ankle arthritis. Chest X-ray showed a right parahilar opacity and ipsilateral pleural effusion. Further work-up confirmed a diagnosis of lung adenocarcinoma with pleural metastasis. The patient died shortly thereafter.
Conclusion: This case series highlights the heterogeneous clinical presentations of HOA and its association with serious underlying conditions. In two of the three cases, it was the initial manifestation of advanced lung adenocarcinoma, diagnosed only after investigation of musculoskeletal symptoms and digital changes. In the third, HOA reflected an atypical presentation of sarcoidosis, identified early through a systematic approach. This underscores the importance of early recognition of this syndrome, which can enable timely diagnosis of potentially life-threatening conditions, reinforcing the critical role of Rheumatology in initiating appropriate investigations.

244 - CARDIAC MANIFESTATIONS AS AN EARLY AND PIVOTAL FEATURE IN EOSINOPHILIC GRANULOMATOSIS WITH POLYANGIITIS: A MULTICENTRIC PORTUGUESE CASE SERIES

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Introduction: Eosinophilic Granulomatosis with Polyangiitis (EGPA) is a rare ANCA-associated vasculitis characterized by adult-onset asthma, eosinophilia, and small to medium vessel inflammation. Cardiac involvement, although potentially severe, is often underrecognized and may precede or be the first manifesta-

244 – TABLE I. Summary of Clinical, Laboratory, and Imaging Characteristics of Eosinophilic Granulomatosis with Polyangiitis Patients with Cardiac Involvement.

Variable	Patient 1	Patient 2	Patient 3	Patient 4	Patient 5	Patient 6	Patient 7	Patient 8	Patient 9	Patient 10
Gender	F	F	F	M	F	F	F	F	F	M
Age at EGPA diagnosis (years)	25	67	75	13	72	64	66	46	48	69
Age at cardiac involvement (years)	48	67	75	13	72	64	66	46	48	69
Previous manifestations (before EGPA diagnosis)	NA	Asthma	Asthma CRSwNP Eosinophilia	NA	NA	Asthma CRSwNP	Asthma CRSwNP	Asthma CRSwNP	Asthma CRSwNP	Asthma CRSwNP
Clinical presentation (at EGPA diagnosis, besides eosinophilia)	Asthma CRSwNP	Cardiac Cutaneous GI PNS B sympt.	Cardiac Articular B sympt.	Cardiac Asthma CRSwNP Pulmonary Articular Cutaneous	Cardiac Cutaneous Renal	Cardiac Thromboembolic	Cardiac Renal Pulmonary B sympt.	Cardiac Pulmonar PNS	Cardiac B sympt.	Cardiac Pulmonary CNS, PNS Renal
Previous therapy	GC + AZA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cardiac Manifestation	Myocarditis + Dilated cardiomiopathy1	Myocarditis + Pericardial effusion + Heart failure	Heart failure	Pericarditis	Myocarditis	Myocarditis + Pericardial effusion + intracavitary thrombus	Myocarditis	Myocarditis + Pericardial effusion	Myocarditis + Heart failure	Myocarditis
Duration of hospitalization (days)	NA	18	89	16	Unknown	18	14	Unknown	20	58
BVAS (previous/ during cardiac involvement)	0/3	3/6	13/13	0/10	0/10	0/11	0/12	0/10	0/15	0/36
ANCA status	Neg	Neg	Neg	Neg	MPO+	Neg	Neg	Neg	Neg	MPO+
Eosinophil peak (/µL)	1100	8230	22000	62000	19000	6120	>10000	16380	4680	10980
CRP peak (mg/ dL)	0.03	6.5	50	18.8	9.0	14.7	18.6	7.3	11.2	25.8
hs-cTnI peak (ng/L)	Undetectable	1070	2380	2171	3227	377	1000	9699	27501	48142
NT-ProBNP peak (pg/mL)	131	6900	>35000	14893	13372	11808	7735	2047	1600	10110

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244 – Continuation

Variable	Patient 1	Patient 2	Patient 3	Patient 4	Patient 5	Patient 6	Patient 7	Patient 8	Patient 9	Patient 10
Cardiac MRI (during cardiac manifestation)	Diffuse subendocardial LGE	Diffuse subendocardial LGE	Diffuse subendocardial LGE	Diffuse subendocardial LGE + Myocardial edema	NA	Diffuse subendocardial LGE + Myocardial edema	Diffuse subendocardial LGE	Diffuse subendocardial LGE	Diffuse subendocardial LGE	Myocardial edema
LVEF during/ after cardiac involvement (%)	40%/ 45.6%	Unkown/56%	<20%/ 33%	30%/ 54%	55%/ 55%	55%/ 55%	55%/ 55%	30%/ 57%	20%/ 55%	50%/ 60%
Induction Therapy	GC2 + RTX	GC2 + IVIg	GC2 + CYC	GC2	GC3 + RTX4	GC 2	GC2	GC2 + CYC	GC2 + CYC	GC2 + CYC
Maintenance Therapy	RTX	AZA + Mepo	NA	AZA	GC alone	AZA + (MPZ vs. Depemokimab)3	(MPZ vs. Depemokimab)3	AZA	MTX	Unknow
1-year survival	Stable	Stable	Deceased (infection)	Stable	Stable	Stable	Stable	Stable	Stable	Stable

AZA – azathioprine; CRSwNP – chronic rhinosinusitis with nasal polyposis; CRP – C-reactive protein; CRSwNP – chronic rhinosinusitis with nasal polyposis;CYC – cyclophosphamide; F – female; GC – glucocorticoids; hs-cTnI – high sensitivity cardiac troponin I; IVIg – intravenous immunoglobulin; LGE – late gadolinium enhancement; LVEF – left ventricle ejection fraction; M – male; MPZ – mepolizumab; MTX – methotrexate; NA – not applicable. ; RTX – rituximab. 1 Assymtomatic, detected on routine examination. 2 Metilprednisolone 1g/day for 3 days followed by prednisolone 1mg/kg/day. 3 Prednisolone 1mg/kg/day 4 RTX suspended after 1 administration due to possible toxidermia. 3 Blinded in the context of clinical trial.

tion of EGPA. It represents a major contributor to morbidity and remains one of the leading causes of mortality in this disease.1,2

Methods: We conducted a retrospective multicentric study in Portugal, including patients with EGPA (fulfilling the 2022 ACR/EULAR Classification Criteria) and cardiac involvement. Diagnosis of cardiac involvement was based on clinical and imaging findings, with exclusion of other cardiac diseases. Clinical, laboratory, imaging, and therapeutic data were collected and analyzed.

Results: We included 10 patients from 4 rheumatology centers, mostly female (80%) (table 1). The median age at diagnosis of EGPA was 65 years (IQR 29; range 13–75), and the median age of onset of asthma or upper airway disease was 34 years (IQR 21; range 13–70), with most patients having a long prodromal phase (median 5 years; IQR 32; range 0–33). Cardiac involvement occurred at or near the time of EGPA diagnosis in all but one patient and was the key factor leading to diagnosis. The patient who had the diagnosis of EGPA before cardiac manifestations was receiving treatment with prednisolone 2.5 mg/day and azathioprine 75 mg/day. Cardiac manifestations included myocarditis (n=8), pericarditis (n=1), pericardial effusion (n=3), heart failure (n=3), dilated cardiomyopathy (n=1), and intracavitary thrombus (n=1). Elevated troponin and NT-proBNP levels, together with abnormal echocardiography or cardiac magnetic resonance imaging (MRI), were key diagnostic clues. All but one patient underwent cardiac MRI, which revealed predominantly subendocardial late gadolinium enhancement (n=8) and myocardial edema suggestive of active inflammation (n=3). Only one patient underwent endomyocardial biopsy (patient 8 on table I), which showed preserved myocardial architecture with eosinophilic infiltration. ANCA was positive in two patients (both MPO+), while eosinophilia was present in all patients (median peak: 10,790/µL; IQR 13,990). All patients received glucocorticoids; 7 required additional immunosuppressive therapy for remission induction, including cyclophosphamide (n=4), rituximab (n=2), or intravenous immunoglobulin (n=1), and azathioprine (n=4), methotrexate (n=1), or mepolizumab (n=1-3)3 for maintenance. During follow-up, cardiac function remained stable in all but one patient, who died from an infection.

Discussion: Cardiac involvement in EGPA was often the key manifestation leading to diagnosis, highlighting its diagnostic value. It showed varied clinical features, detectable via biomarker elevation and advanced imaging. Despite ANCA negativity in most cases, eosinophilia was a consistent finding, suggesting an eosinophilic rather than vasculitic phenotype and reinforcing its predictive diagnostic value in these patients. In ANCA-negative cases like these (only 20% ANCA positivity), cardi-

ac involvement — typically associated with a more eosinophilic profile2 — provided a crucial diagnostic clue in the context of pre-existing eosinophilia.

Conclusion: These findings support a high index of suspicion for cardiac involvement in EGPA, particularly in patients with adult-onset asthma and eosinophilia. Cardiac imaging and biomarker monitoring should be incorporated into routine assessment to facilitate timely diagnosis and improve outcomes.

245 - MULTIFACTORIAL EXPLANATORY MODEL OF FATIGUE IN PATIENTS WITH SYSTEMIC SCLEROSIS: A STRUCTURAL EQUATION APPROACH

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245 – TABLE 1. Baseline demographics and clinical characteristics (N=119).

Age, years, mean (SD)	59,3 (12,1)
Female, n (%)	104 (87,4)
BMI (Body Mass Index), Kg/m, mean (SD)	25,5 (4,5)
Marital status, n (%) Married/single/divorced/ widowed	73 (62,9)/ 17 (14,7)/6 (5,2)/ 9 (7,8)
Employment status, n (%) Retired, employed, unemployed	56 (48,3)/ 42 (36,2) / 7 (6)
Tobacco, n (%) Never smoker/ Current smoker/ Ex-smoker	67 (56,3) / 10 (8,4) / 10 (10,1)
Disease characteristics	
SSc subset: Limited/Diffuse/VEDOSS, n (%)	73(61,3)/ 28(23,5)/ 18 (15,1)
SSc duration since first symptoms non-Raynaud, years, mean (SD)	18,2 (17,9)
SSc duration <5 years since diagnosis, n (%)	41 (36,3)
ACR/EULAR 2013, n (%)	84 (70,6)
Skin Thickening of the fingers, n (%)	61 (51,7)
Puffy fingers, n (%)	40 (33,9)
History of digital ulcers, n (%)	33 (27,7)
RP, n (%)	117 (98,3)
mRSS (0-51)	3,6 (5,2)
Interstitial lung disease (ILD), n (%)	40 (33,6)
Pulmonary arterial hypertension (HAP), n (%)	9 (7,6)
Esophageal involvement, n (%)	26 (21,8)
Gastric involvement, n (%)	15 (12,6)
Intestinal involvement, n (%)	1 (0,8)
Cardiac involvement, n (%)	11 (9,2)
Arthritis, n (%)	32 (26,9)
Myositis, n (%)	3 (2,5)
Calcinosis, n (%)	12 (10,1)
Contractures, n (%)	7 (5,9)
Tendon frictions, n (%)	3 (2,5)
ANAs positive, n (%)	116 (97,5)
Anti-centromere positive, n (%)	65 (54,6)
Anti-RNA polymerase III positive, n (%)	2 (1,7)
Anti-Scl-70 positive, n (%)	29 (24,4)
Anti-Pm/Scl, n (%)	7 (5,9)
Immunosuppressive therapy, n (%)	32 (26,9)
LVEF, %, mean (SD)	61,2 (7,1)

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245 – TABLE 1. Continuation

PSAP mm/Hg, mean (SD)	31,5 (12,3)
DLCO, %, mean (SD)	85,6 (22,6)
DLCO <70, n (%)	21 (17,9)
CVF, %, mean (SD)	97,6 (15,3)
Hemoglobin, g/dL, mean (SD)	13,1 (1,5)
CRP, mg/dl, mean (SD)	0,6 (1,0)
CRP > 0,6, n (%)	26 (21,8)
mDAI > 2,5, Active Disease, n (%)	13 (10,9)
Patient-Reported Outcomes	
FACIT fatigue score, 0–52, median (IQR)	35 (26,5 - 40)
FACIT< 30 (severe fatigue), n (%)	27 (22,7)
HAQ, 0-3,	0,6 (0 - 1,3)
HADS-D (depression), 0-21	6 (3 - 9)
HADS-A (anxiety),0-21	7 (4 - 10)
SF-36 (0-100)	
Physical Functional	55,0 (35,0 – 80,0)
Role Physical	62,5 (31,3 – 87,5)
Body pain	42,0 (41,0 – 62,0)
General health	40,0 (30,0 – 51,0)
Vitality	50,0 (37,5 – 60,9)
Social functioning	75,0 (50,0 – 87,5)
Role Emotional	75,0 (45,8 –100,0)
Mental health	60,0 (46,4 – 80,0)
EQ-5D (0,59 –1,0)	0,5 (0,3 – 0,7)
SHAQ (0-100)	
Raynaud's phenomenon	39 (3,3 -70)
Digital ulcers	0 (0 -50)
Respiratory symptoms	5 (0 - 49)
Gastrointestinal symptoms	0 (0 –31,5)
Overall disease severity	47,5 (15,3 – 63,5)

Data are n (%), mean (SD), or median (range). mRSS=modified Rodnan skin score. FVC=forced vital capacity. DLCO=diffusing capacity for carbon monoxide. SF-36=36-item short-form general healthy survey. HAQ-DI=health assessment questionnaire disability index. Definitions of organ involvement accordingly with EUSTAR (Ref: DOI:10.1136/annrheumdis-2024-eular.2455)

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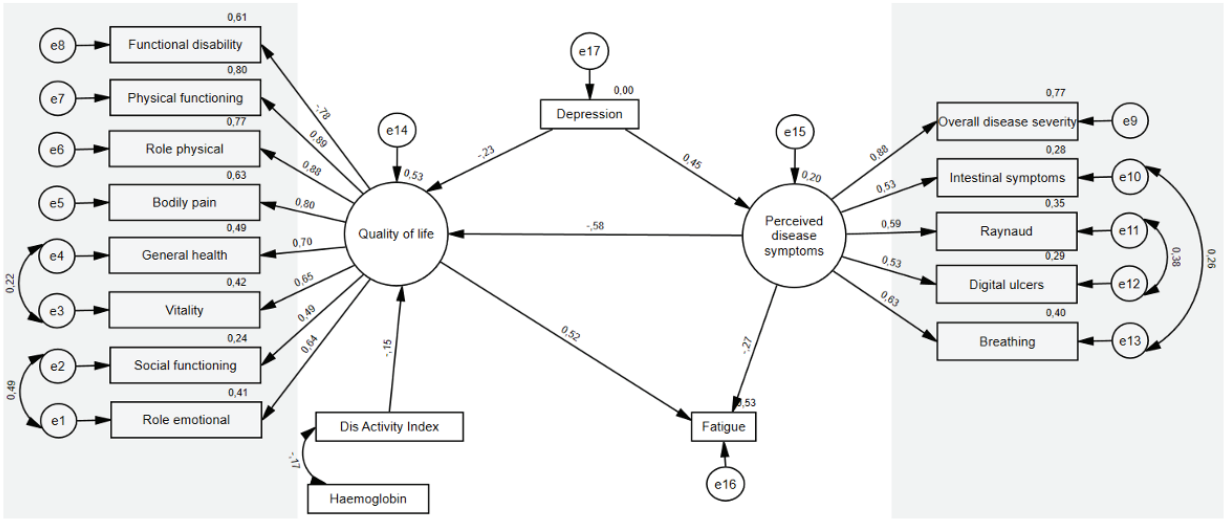
Background: Fatigue is a common and burdensome symptom that has a substantial negative impact on health-related quality of life (QoL) of patients with systemic sclerosis (SSc). A better understanding of factors associated with fatigue in SSc would support research to improve its challenging management.

Objectives: We use a multifactorial explanatory model to assess the impact of several parameters including quality of life, disease activity, perceived disease symptoms, haemoglobin levels, depression and anxiety, on fatigue in patients with SSc.

Methods: We performed an observational, cross-sectional, in a tertiary single Rheumatology outpatient department using a structural equation modelling (SEM) estimation to analyse the associations between fatigue and disease activity, perceived disease symptoms, depression and anxiety dimensions.

Fatigue was assessed using the FACIT scale. Disease activity was measured with the modified Disease Ac-



245 – Figure 1. Estimated standardised direct effects for the proposed model. mDAI= modified Disease Activity Index using Tendon friction rubs, CRP, digital ulcers, mRSS and Dlco <70% of predicted value. Circles represent latent factors. Squares represent measured variables (the scale scores). Arrows connecting circles and rectangles in one direction show a hypothesized direct relationship between the two variables. Circles with the letter "e" written in it represent the associated error.

tivity Index. QoL was evaluated through the SF-36 and EQ5D, and, functional ability by the HAQ Disability Index. Depressive and anxiety symptoms were assessed using the Hospital Anxiety and Depression Scale.

Disease specific symptoms and overall disease severity were measured by the six visual analogue scales (pain, intestinal, breathing, Raynaud phenomenon, digital ulcers, 'overall') of the Scleroderma HAQ. Haemoglobin (mg/dl) was also collected.

Descriptive and correlational analyses were performed using SPSS®, v. 29; and SEM were performed using SPSS® Amos (IBM, Armonk NY, USA) software. Statistically significant effects were assumed for p<0.05.
Results: One hundred and nineteen patients (87.4% female; mean age 59.3 [SD 12.1] years, with a mean disease duration 9.6 [13.3] years) were included. 61.3% had limited cutaneous SSc and 23.5% diffuse cutaneous SSc (Table 1).

The results obtained in the structural equation model indicated a good fit to the data ([X2(112) =178.85, X2/df=1.59, p<0.005; CFI=0.93; TLI=0.92; RMSEA=0.07, p=0.04]), explaining 53% of the variance of the fatigue (R2=0.53) (Figure 1).

Perceived disease symptoms, disease activity and depression explained 53% of the variance of quality-of-life (R2=0.53).

We found a direct negative association between disease activity (mDAI) and quality of life (β=-0.15; p=0.04), and, furthermore, quality of life showed a significant positive direct relation with lower fatigue (β=0.52; p<0.001).

The model also showed a direct negative relation between perceived disease symptoms and quality of life (β=-0.58; p<0.001); and higher fatigue (β=-0.27; p=0.01).

Furthermore, depression showed a significant negative direct negative relation with quality of life disease (β=-0.23; p=0.009) and a significant positive direct relation with perceived disease symptoms (β=0.45; p=0.001). Anxiety was excluded from the model as it was not statistically significant.

In our model, haemoglobin has a slight indirect effect through disease activity.
Conclusion: These results suggest that quality of life plays a direct contributing role for fatigue in patients with SSc. Disease activity, perceived disease symptoms, and depression may play an indirect role.

This highlights the importance of expanding beyond disease activity in the management of SSc, and the need for a multidisciplinary approach.

246 - ANIFROLUMAB: A TREATMENT OPTION FOR REFRACTORY SLE - EXPERIENCE OF A LUPUS CLINIC

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Introduction: Anifrolumab, an inhibitor of the type I interferon receptor (IFNAR1), is the most recently approved bDMARD therapy for the treatment of moderate to severe systemic lupus erythematosus (SLE). It may potentially be considered as a first-line drug option, with demonstrated benefits in reducing overall SLE activity, particularly in treating mucocutaneous and musculoskeletal involvement.
Aim: To describe the experience of the Rheumatology department of ULS Santa Maria with anifrolumab in the treatment of SLE patients.
Methodology: A retrospective study of SLE patients that have been treated with anifrolumab followed in our Lupus clinic was performed. Data collection and organization were based on hospital clinical records, online platform Reuma.pt and feedback from the attending physicians.
Results: Six female patients meeting the classification criteria for SLE were selected. Median age was 32.5 years. All patients had mucocutaneous and systemic involvement. Joint involvement was present in four patients, three of them with active articular disease. Two of these patients had a history of renal involvement. All had moderate disease activity (SLEDAI-2K 6–10). All patients were on hydroxychloroquine, five were taking prednisolone (four were using 5 mg per day; one was with alternating therapy 7.5/5 mg per day); all of them were also with other DMARD (azathioprine, methotrexate or mycophenolic acid). All patients tested positive for anti-dsDNA antibodies and two of them had complement consumption at the time of initiation.

All patients started on anifrolumab after showing refractoriness of cutaneous manifestations despite previous DMARD treatment (including belimumab and rituximab) or intolerance/toxicity to previous DMARDs.

In five out of the six patients treated with anifrolumab significant clinical benefit was observed in cutaneous (including lupus panniculitis) in as early as one month. Joint symptoms, as well as in overall disease activity also improved. After two months of treatment, we noticed in five patients a SLEDAI-2K reduction ranging by 4 to 8 points of reduction. Among four patients who completed 6 months of treatment (one of them 10 months), the response was sustained over time. A patient with renal involvement previously in remission with mycophenolic acid and rituximab relapsed after 14 weeks despite 3 doses of anifrolumab, requiring switch therapy.

Two patients experienced non-severe infections. One patient had recurrent genital herpes, which was controlled with valacyclovir. No treatment discontinuation occurred due to adverse effects.
Discussion: Despite the small number of patients treated and the short duration of exposure, a rapid clinical response was notable, with significant improvement in cutaneous manifestations as soon as one month, besides controlling afterwards arthritis and disease activity. These benefits were sustained in time and anifrolumab was generally well tolerated.

247 - CLINICAL AND PHENOTYPIC CHARACTERIZATION OF FIBROUS DYSPLASIA PATIENTS IN A PORTUGUESE MULTIDISCIPLINARY RARE BONE DISEASES CLINIC

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Introduction: Fibrous dysplasia (FD) is a rare, non-hereditary bone disorder where normal bone is replaced by fibro-osseous tissue. It may be monostotic, polyostotic, or part of McCune-Albright Syndrome (MAS) when associated with endocrine and cutaneous involvement.1 We aimed to characterize patients with FD followed in a multidisciplinary rare bone disease clinic at a Portuguese center.
Methods: Retrospective descriptive study of FD patients under follow-up at a tertiary Rheumatology Department. Clinical data were obtained from medical records and analyzed using descriptive statistics.
Results: Fourteen patients were included (57.1% female; mainly Caucasian (85.7%) median age 26.0; median age at diagnosis 10.0) (table 1). FD was polyostotic in 78.6%, MAS in 72.7% of those. Presenting features included bone pain (35.7%), fractures (21.4%), deformity/swelling (14.3%), precocious puberty (14.3%). Diagnosis was incidental in 21.4% of the cases. Bone deformities occurred in 78.6%, with craniofacial involvement in 64.3%, and Shepherd's crook deformity in 21.4%. Fractures (42.9%) mostly affected femur, tibia, humerus, and pelvis. Short stature was present in 21.4%. Bone biopsy was performed in 35.7%; GNAS testing in 21.4% (1 compatible). Endocrinopathies occurred in 50%, including precocious puberty, acromegaly, Cushing's, and hyperprolactinemia. Neurological complications, mainly optic nerve compression, affected 28.6%, and café-au-lait spots 42.9%. Treatments included bisphosphonates (57.1%), hormonal therapy (35.7%), and surgery (42.9%).
Discussion/Conclusion: This series highlights the clinical heterogeneity of FD/MAS and reinforces the importance of early diagnosis and multidisciplinary care; genetic testing may aid diagnosis in selected cas-

247 – Table I. Demographic, Clinical, and Immunological Features of Fibrous Dysplasia Patients

Variables	Whole cohort	N=14, 100%
Demographic Data		
Female sex	8	57.1%
Caucasian ethnicity	12	85.7%
Median current age (median years, IQR)	26	14
Median age at diagnosis (median years, IQR)	10	16
Independence in ADLs	13	92.9%
Variant		
Monostotic FD	3	21.4%
Polyostotic FD	11	78.6%
McCune-Albright Syndrome	8	57.1%
Clinical Features		
Symptoms at presentation		
Bone pain	5	35.7%
Fracture	3	21.4%
Deformity/swelling	2	14.3%
Precocious puberty	2	14.3%
Incidental diagnosis	3	21.4%
Bone deformities	11	78.6%
Craniofacial involvement	9	64.3%
Shepherd's crook deformity	3	21.4%
Affected bones		
N = 2-9	8	57.1%
N ≥ 10	6	42.9%
Craniofacial	10	71.4%
Upper limbs	6	42.9%
Lower limbs	10	71.4%
Axial skeleton	10	71.4%
Fractures (any time)	6	42.9%
Pelvis	1	7.1%
Femur	5	35.7%
Tibia	3	21.4%
Fibula	1	7.1%
Humerus	2	14.3%
Radius	2	14.3%
Rib bones	2	14.3%
Height (median cm, IQR)	160	29
Short stature	3	21.4%
Endocrinopathies	7	50.0%
Precocious puberty	4	28.6%
Acromegaly	2	14.3%
Cushing's	2	14.3%
Prolactinoma	1	7.1%
Neurologic complications	4	28.6%

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247 – Table I. Continuation

Variables	Whole cohort	N=14, 100%
Neurologic complications	4	28.6%
Reduced vision acuity (optic nerve compression)	4	28.6%
Hypoacusis (auditory canal stenosis)	1	7.1%
Parenchymal compression	2	14.3%
Café-au-lait spots	6	42.9%
Imaging Features		
CT	11	78.6%
Ground-glass appearance	7	50.0%
Cortical thinning	5	35.7%
Bone expansion	7	50.0%
Sclerotic rim	4	28.6%
Bone scintigraphy	11	78.6%
Increased uptake	5	35.7%
Previous Treatments		
Intravenous Bisphosphonate	8	57.1%
Hormonal therapy	5	35.7%
Corticosteroids (Hydrocortisone, Fludrocortisone)	3	21.4%
Somatostatin analogues (Octreotide)	1	7.1%
Dopamine agonists (Bromocriptine, Cabergoline)	2	14.3%
Thyroid hormone replacement (Levothyroxine)	1	7.1%
Surgery	6	42.9%
N ≥ 5	3	21.4%
Fracture related	2	14.3%
Deformities relateda	4	28.6%
Endocrine related	1	7.1%

es. Our experience helps fill a gap in literature, largely pediatric-focused, and supports the need for collaborative registries in adult FD/MAS populations.

249 - 30 YEARS OF ANDAI: A JOURNEY OF ADVOCACY, EDUCATION, AND IMPACT IN JUVENILE RHEUMATIC MUSCULOSKELETAL DISEASES

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Background: The National Association of Patients with Juvenile Arthritis (ANDAI), founded in 1995, has been a key player in supporting children, young people, and families affected by Juvenile Rheumatic Musculoskeletal Diseases (RMDs) in Portugal. Over three decades, ANDAI has evolved from providing local psychosocial support to leading national and international initiatives that promote awareness, patient empowerment, and collaborative research.
Objectives: This work aims to showcase the main milestones and diversified activities developed by ANDAI throughout its 30-year history, highlighting its enduring impact on patient support, health literacy, public awareness, and advocacy.
Methods: A descriptive retrospective analysis was conducted based on ANDAI's internal records, event archives, digital platforms, and testimonials from patients, families, and healthcare professionals. Key initiatives were identified across the association's areas of intervention, including community engagement, education, digital innovation, health communication, advocacy, and scientific dissemination.
Results: Throughout its history, ANDAI has created opportunities for connection, learning, and support. The Annual Meeting serves as a cornerstone event, bringing together patients, families, and healthcare professionals. ANDAI also organizes an Educational Summer Camp that strengthens peer relationships and promotes psychosocial well-being. The association's Scientific Days ("Jornadas científicas") provide a platform for knowledge exchange between clinicians, researchers, and the patient community. To expand educational reach, ANDAI publishes an informative bulletin and has launched the Vitória app, currently being implemented in paediatric rheumatology waiting rooms, to support newly diagnosed children. Communication and health literacy have been further amplified through the podcast "Quem vê caras não vê articulações," with eight episodes dedicated to demystifying juvenile rheumatic diseases and sharing patient experiences. The ANDAITalks series and other events have created accessible spaces for dialogue on disease management and patient rights. Internationally, ANDAI has participated in World yOung Rheumatic Diseases Day (WORD Day) and World Arthritis Day, organizing awareness campaigns and public sessions. Additionally, ANDAI has contributed to scientific dissemination through presentations at national and international congresses.
Conclusions: ANDAI's 30-year journey demonstrates the transformative power of sustained patient advocacy and community-driven initiatives. The association has successfully combined traditional support models with innovative tools and global partnerships to improve the lives of children and young people living with RMDs. Looking ahead, ANDAI remains committed to evolving and advocating for the best interests of these children and their families.