

## Are we overlooking osteoarthritis? – A comparative study of pain, function and quality of life in patients with hand osteoarthritis and rheumatoid arthritis

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To the editor:

Osteoarthritis (OA) is frequently regarded by patients and health care providers as a normal consequence of ageing<sup>1</sup>. On the other hand, it is established that rheumatoid arthritis (RA) is a pathological condition requiring prompt and efficacious treatment, with remarkable progresses achieved in the last decades in its treatment and knowledge of pathophysiology. Pain and physical limitations are hallmarks of both conditions and previous studies suggest that OA and RA may have similar burden for both groups of patients<sup>2,3</sup>, although the level of inflammatory activity of RA was not taken into account (or at least reported).

With this work, we intended to compare levels of pain, physical disability and health-related quality of life (QoL) in patients with primary hand osteoarthritis (hOA) and with RA – active disease (aRA) or in remission (rRA). We conducted an observational cross-sectional study including patients from two centres with hOA and RA, either in remission or with inflammatory activity (with at least two swollen and/or tender hand joints) as defined by DAS28-3V. Patients completed a survey consisting of visual analogic scale (VAS) for pain, the Health Assessment Questionnaire (HAQ) and Short Form 36 (SF36). Mean values were compared between the three groups using one-way ANOVA and Bonferroni tests.

Thirty patients with hOA and 93 with RA (33 with aRA and 60 with rRA) – with no significant differences in age, body mass index or disease evolution time between groups – were included. All patients enrolled were Caucasian women. Twelve of the hOA patients (40%) also had OA in other locations. Table I shows population's demographics and results of the survey.

Patients with hOA reported higher levels of pain

when compared with aRA patients (mean VAS 57.3 vs 49.3mm – not-significant) and rRA patients (28.6mm –  $p<0.001$ ). Regarding physical function, patients with hOA reported levels of disability similar to rRA patients (mean HAQ 1.0 vs 0.9 – not-significant), but significantly lower disability than patients with aRA (mean HAQ 1.5 –  $p<0.05$ ).

Concerning QoL as measured by mental health (MH) and general health status (GH) domains of SF36, patients with hOA evaluated their QoL significantly better than patients with aRA (MH 63.7 vs 49.5 –  $p<0.05$ ; GH 47.5 vs 35.2 –  $p<0.05$ ) and in similar levels to patients with rRA (MH 62.8 – not-significant; GH 45.1 – not-significant).

Our results show that hOA may have similar or even higher burden of pain than RA (even with clinically relevant inflammatory activity in hand joints). On the other hand, patients with hOA seem to preserve function and report QoL in similar levels to patients with controlled RA. These findings are in line with some previous studies<sup>3,4</sup>. Importantly, the absence of differences between groups in demographic and clinical variables allows us to safely compare the effects of both diseases in pain, disability and QoL. Small sample size and the possibility of occurrence of secondary osteoarthritis in RA patients may be pointed as limitations of our work. The possibility of a selection bias is also a concern since patients with hOA with mild symptoms are probably under-represented since they could have their symptoms managed in the primary care setting. However, we still consider that we are addressing an unmet need in (at least) the subset of patients that come to the rheumatology department.

Rather than intending to compare OA severity to RA, this brief study highlights OA as a cause of severe pain, which should lead us to try to achieve better symptom control and encourage rheumatologists and other health professionals to endeavour more efforts in the

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**TABLE I. POPULATION'S DEMOGRAPHICS AND RESULTS OF THE SURVEY**

	hOA (n=30)	aRA (n=33)	rRA (n=60)
Age (years)	63.9 ± 9.2	61.0 ± 8.5	64.9 ± 9.6
BMI (Kg/m <sup>2</sup> )	26.2 ± 3.3	26.3 ± 3.8	25.4 ± 3.2
Disease evolution (years)	10.9 ± 10.4	12.3 ± 10.4	13.1 ± 9.8
Pain VAS (0-100mm)	57.3 ± 18.6	49.3 ± 21.1	28.6 ± 19.4
HAQ (0-3)	1.0 ± 0.6	1.5 ± 0.7	0.9 ± 0.8
Mental Health – SF36 (0-100)	63.7 ± 17.4	49.5 ± 26.0	62.8 ± 23.9
General Health – SF36 (0-100)	47.5 ± 21.1	35.2 ± 16.7	45.1 ± 18.5

hOA – hand osteoarthritis; aRA – active rheumatoid arthritis; rRA – rheumatoid arthritis in remission; BMI – body mass index; VAS – visual analogic scale; HAQ – health assessment questionnaire (varies from 0 to 3, with 3 representing maximal dysfunction); SF36 – short form 36 questionnaire (each domain varies from 0 to 100, with 100 in the two domains shown representing better quality of life in that domain). Mean values ± standard deviation.

field of OA, in order to better understand its pathogenesis and to eventually find disease modifying drugs, just like the path taken for RA, especially considering that OA is much more frequent than RA, therefore potentially representing considerable higher global burden.

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