

Brucellosis in spondyloarthritis mimicking an exacerbation

Garip Y¹, Eser F², Erten S³, Yilmaz O², Yildirim P⁴

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ABSTRACT

Spondyloarthritis are a group of chronic inflammatory diseases that affect the axial skeleton, entheses and peripheral joints and may have extraarticular manifestations such as uveitis, psoriasis and inflammatory bowel disease. Brucellosis is a systemic infectious disease, endemic in Middle East, Latin America, and Mediterranean countries, which may present manifestations that resemble other diseases posing serious problems of differential diagnosis. Some hallmarks of Brucellosis may mimic a spondyloarthritis flare. In this paper, authors present a clinical case of brucellosis occurring in a patient with spondyloarthritis. Clinical symptoms initially mimicked exacerbation of spondyloarthritis

Keywords: Brucella; Spondyloarthritis; Sacroiliitis

The authors present a case of a 27-year-old male with a four-year history of spondyloarthritis that was referred to our outpatient clinic because of worsening low back pain, fatigue and morning stiffness for the past 6 months. He was receiving sulphasalazine 2 g/day, indometacin 150 mg/day and paracetamol 1000-1500 mg/day. He had no history of trauma, fever, night sweats, weight loss or gastrointestinal symptoms. He recalled ingesting unpasteurized and unsalted cheese about 1-2 months before the onset of the symptoms.

The patient was afebrile when he was admitted. In physical examination, range of motion of the lumbar spine was limited. Modified Schober: 3 cm, fingertip-to-floor distance: 17 cm, occiput to wall distance: 14 cm, chin-manubrium distance: 4 cm. He was tender to

palpation at the right sacroiliac joint. Straight leg raising and femoral stretch tests were negative. His neurological examination was normal. There was no joint swelling, lymphadenopathy or splenomegaly.

His laboratory parameters showed the following: erythrocyte sedimentation rate (ESR): 32 mm/h (normal range: 0-20 mm/h), C-reactive protein (CRP): 66 mg/L (normal range: 0-10mg/L), white blood cell count (WBC): 9400/mm³ (normal range: 4000-11000/mm³), haemoglobin: 12.9 mg/dL (normal range: 14-18 mg/dL). HLA -B27 was negative. Brucella tube agglutination (Wright) test was positive in serum sample of the patient with a titer of 1/640. *Brucella melitensis* was isolated in blood culture.

Because of his claustrophobia, he did not allow to undergo a magnetic resonance imaging (MRI) examination. Computed tomography (CT) of sacroiliac joints revealed bilateral chronic sacroiliitis, no evidence of soft tissue involvement (Figure 1).

The patient was diagnosed as brucellosis. He was transferred to the infectious medicine department and received doxycyclin 200 mg/day and rifampicin 600 mg/day for 3 months. Symptoms of the patient were relieved after three-week treatment with antibiotics.

Brucellosis is a systemic infectious disease, transmitted to man by ingestion of unpasteurized milk and



FIGURE 1. Computed tomography of sacroiliac joints

1. Department of Physical Medicine and Rehabilitation, Ankara Basak Medical Center

2. Department of Physical Medicine and Rehabilitation, Ankara Numune Training and Research Hospital

3. Department of Rheumatology, Yildirim Beyazit University

4. Department of Physical Medicine and Rehabilitation, Kocaeli Derince Training and Research Hospital

its products or contact with infected animals, by inhalation or through abraded skin and conjunctiva¹. Brucellosis is a major health problem in developing countries including Turkey, owing to its difficult diagnosis, tendency to relapse, and multisystem complications². It affects the entire body, including gastrointestinal, cardiovascular, genitourinary and musculoskeletal system³. Seropositivity of brucella has been reported as 4.8% in Turkey⁴.

Fever is the most common symptom of brucellosis, occurring in 84.2%-98.7% of the cases. The other symptoms are night sweats, myalgia, arthralgia or arthritis and constitutional symptoms including fatigue, malaise, anorexia and asthenia⁵⁻⁶. However, Santiago *et al.* reported case series of 90 patients in which only 33% had systemic features⁷.

In our case, brucella infection superimposed to axial spondyloarthritis, which had been diagnosed four years ago. The symptoms were only low back pain and fatigue. He did not complain of fever, night sweats, constitutional symptoms including anorexia or asthenia, or gastrointestinal symptoms. Worsening of his symptoms and a history of unpasteurized cheese 1-2 months before the onset of the symptoms caused us to suspect 'brucellosis'. There are two cases of brucellosis, occurring in patients with spondyloarthritis, previously reported. In 2009, Papagoras *et al.* reported a case of brucella spondylitis in a patient with psoriatic arthritis⁸. On the other hand, a case of brucellosis in a patient with ankylosing spondylitis was reported in 2001, by Ozgocmen *et al.*⁹.

Since clinical symptoms of brucellosis are various and nonspecific, and may co-exist with other diseases, it is often difficult to diagnose. Especially in the endemic areas, brucellosis should be considered in the differential diagnosis of axial musculoskeletal symptoms. Early diagnosis and treatment of brucellosis would prevent further complications.

CORRESPONDENCE TO

Yesim Garip
Yasamkent Mah. 3250.
Cad. Karevler B blok no:10, Ankara, Turkey
E-mail: dryesimgarip@gmail.com

REFERENCES

1. Khateeb MI, Araj GF, Majeed SA, Lulu AR. Ann Rheum Dis 1990; 49: 994-998
2. Dashti AS, Karimi A. Skeletal Involvement of Brucella melitensis in Children: A Systematic Review. Iran J Med Sci 2013; 38: 286-292
3. Solera J, Lozano E, Martínez-Alfaro E, Espinosa A, Castillejos ML, Abad L. Brucellar Spondylitis: Review of 35 Cases and Literature Survey. Clin Infect Dis 1999; 29: 1440-1449.
4. Cetinkaya Z, Aktepe OC, Ciftci IH, Demirel R. Seroprevalence of human brucellosis in a rural area of Western Anatolia, Turkey. J Health Popul Nutr 2005; 23: 137-141
5. Ruiz-Mesa JD, Sánchez-Gonzalez J, Reguera JM, Martín L, Lopez-Palmero S, Colmenero JD. Rose Bengal test: diagnostic yield and use for the rapid diagnosis of human brucellosis in emergency departments in endemic areas. Clin Microbiol Infect 2005;11: 221-225
6. Mantur BG, Biradar MS, Bidri RC, Mulimani MS, Veerappa, Kariholu P, et al. Protean clinical manifestations and diagnostic challenges of human brucellosis in adults: 16 years' experience in an endemic area. J Med Microbiol 2006; 55:897-903
7. Santiago T, Rovisco J, Silva J, Pereira da Silva JA. Osteoarticular brucellosis: an analysis of the past decade. Acta Reumatol Port 2011;36: 120-125
8. Papagoras CE, Argyropoulou MI, Voulgari PV, Vrabie I, Zikou AK, Drosos AA. A case of Brucella spondylitis in a patient with psoriatic arthritis receiving infliximab. Clin Exp Rheumatol 2009;27: 124-127
9. Ozgocmen S, Ardicoglu A, Kocakoc E, Kiris A, Ardicoglu O. Paravertebral abscess formation due to brucellosis in a patient with ankylosing spondylitis. Joint Bone Spine 2001;68: 521-524.