



Brucellosis patient presenting with sacroiliitis - a case report

Archana Bhat ¹ and Chandra Priyanka²

¹Assistant Professor and ²Senior resident, Department of Medicine, Father Muller Medical College, Father Muller Road, Kankanady, Mangaluru, Karnataka 575002

Received: 08-09-2017 / Revised Accepted: 15-11-2017 / Published: 03-01-2018

ABSTRACT

Osteoarticular disease is universally the most common complication of brucellosis. The objective of this study is to report an interesting case report of a previously healthy individual with sacroiliitis with persistent undulant fever who was treated with triple antibiotic regimen for brucellosis and then recovered completely. This case involved a 31 years old man presented with fever of 2 weeks duration with multiple joint pains, low back pain and inability to walk because of right hip joint pain. He was treated for total duration of 12 weeks with triple antibiotic therapy for brucellosis, with rifampicin, streptomycin and doxycycline and then recovered completely of the illness. This case report study was approved by institutional ethics and research committee.

Keywords: Brucellosis, Sacroiliitis, Rifampicin

Address for Correspondence: Dr. Archana Bhat, Assistant Professor, Department of Medicine, Father Muller Medical College, Father Muller Road, Kankanady, Mangaluru, Karnataka 575002

How to Cite this Article: Archana Bhat and Chandra Priyanka. Brucellosis patient presenting with sacroiliitis - a case report. Int J Res Health Sci 2018; 6(1): 6-8.

This is an open access article distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License, which allows adapt, share and build upon the work non-commercially, as long as the author is credited and the new creations are licensed under the identical terms. 

INTRODUCTION

Brucellosis is a zoonosis seen worldwide and is an important cause of morbidity. Brucellosis with its unique mechanisms, has the ability to evade the immune system and place itself intracellularly, which results in difficulties in establishing definitive diagnosis^[1]. It is possible to control morbidity and mortality with early diagnosis and treatment^[2]. It is also called UNDULANT fever, MALTA fever. Brucellae is a gram – negative coccobacilli and is a soil dwelling organism that usually infects goats and sheep. There are six species of Brucella and four of them are clinically important as they are known to infect humans. They are B. melitensis, Brucella abortus, Brucella suis and Brucella canis^[3]. This paper reports a case of human brucellosis with Brucella suis involving a middle aged Indian man working in middle east country.

CASE REPORT

A 31 years old previously healthy Indian male, working as a bar attender in Middle East country presented to our hospital with fever of 3 weeks duration. Fever was associated with night sweats, malaise and headache. History of low back pain and right hip joint pain and inability to walk. His examination revealed an ill looking man with temperature 39.C BP - 120/80 mm of Hg heart rate = 80/min. Abdominal examination revealed hepatomegaly and splenomegaly. The right sacroiliac joint was positive for MENNELS test and FABER's test. Laboratory findings revealed findings are follows Hb- 13 TC - 7,800 ESR - 20, CRP -269.3 SGOT - 66, SGPT- 93, ALP --157, S. creatinine -- 0.83, ANA profile was negative, and HLA B 27 was negative. Brucella agglutination test was positive at 1/320 time. The blood culture showed Brucella suis growth. MRI of lumbar spine revealed PEDRO PONS sign – Parrot's peak appearance at the anterior superior end of L₄ vertebra which is characterized by osteosclerosis and osteophyte formation. MRI of bony pelvis

showed mild subchondral marrow edema noted in the right sacroiliac joint on the sacral side with minimal T₂ hyperintense collection 20x8 mm deep to the iliacus muscle suggestive of right sacroiliitis. Antibiotic treatment was initiated with doxycycline 200mg/day and rifampicin 600mg/day and streptomycin 1 gram /day and also NSAIDS for pain relief. Patient condition improved and was discharged from hospital after four weeks duration and advised to continue oral antibiotics for 12 weeks duration.

DISCUSSION

Brucellosis is a serious health problem in our country. Osteoarticular involvement is the most common complication of brucellosis^[4]. Numerous studies from various parts of the world reported the frequency of osteoarticular involvement in brucellosis between 0-85%^[5-7]. Among studies conducted in the Mediterranean region of Turkey, ratios of 33.3% were reported by Demiroglu YZ et al^[8]. Hashemi et al reported 28.5% in Iran^[9] and Bosilkovski et al reported 59.2% in Macedonia^[12].

In brucellosis any site in the musculoskeletal system may be involved. It can include arthritis, spondylitis, bursitis osteomyelitis and tenosynovitis. Sacroiliitis is the most common presentation in many studies Cordero- Sanchez,^[15] and Turan H^[18] also found that sacroiliitis as the most common presentation of brucellosis.

MRI is a powerful tool to diagnosis brucellar sacroiliitis.^[13] In conclusion, Brucellosis can present itself with sacroiliitis, peripheral arthritis, spondylitis and spondylodiscitis. In a study conducted by Skalsky^[19] The triple antibiotic regimen was preferred with rifampicin 600 mg/day and doxycycline 200mg/day and streptomycin 1 gm/day for duration of four weeks followed by oral dual antibiotic therapy for 12 weeks duration in consensus with our case study.

REFERENCES

1. Tasova Y, Saltoglu N, Sahin G, Aksu HZS. Osteoarthicular involvement of brucellosis in Turkey. Clin Rheumatol 18: 214-219,1999.
2. Geyik MF, Gür A, Nas K, et al. Musculoskeletal involvement in brucellosis in different age groups: a study of 195 cases. Swiss Med Wkly 132: 98-105, 2002.
3. Aydin M, Fuat Yapar A, Savas L, . Scintigraphic findings in osteoarticular brucellosis. Nucl Med Commun 26: 639-647, 2005.
4. Gonzalez-Gay MA, Garcia-Parrua C, Ibanez D, Garcia-Pais MJ. Osteoarthicular complications of brucellosis in an Atlantic area of Spain. J Rheumatol 26: 141-145, 1999.
5. Madkour MM, Sharif HS, Abed MY, Al-Fayez MA. Osteoarticular brucellosis: results of bone scintigraphy in 140 patients. Am J Roentgenol 150: 1101-1105, 1988.

6. Taylor JP, Perdue JN. The changing epidemiology of human brucellosis in Texas, 1977-86. Am J Epidemiol 130: 160-167, 1988.
7. Gotuzzo E, Alarcon GS, Bocanegra TS, et al. Articular involvement in human brucellosis: a prospective analysis of 304 cases. Semin Arthritis Rheum 12: 245-255, 1982
8. Demiroglu YZ, Turunc T, Aliskan H, Colakoglu S, Arslan H. Brucellosis: Retrospective evaluation of the clinical, laboratory and epidemiological features of 151 cases. Mikrobiyol Bul 41: 517-527, 2007 (in Turkish).
9. Hashemi SY, Keramat F, Ranjbar M, Mamani M, Farzam A, Jamal -Omidi S. Osteoarticular complications of brucellosis in Hamedan, an endemic area in west of Iran. Int J Infect Dis 11: 496-500, 2007
10. el-Desouki M. Skeletal brucellosis: assessment with bone scintigraphy. Radiology 181: 415-418, 1991.
11. Buzgan T, Karahocagil MK, Irmak H. Clinical manifestations and complications in 1028 cases of brucellosis: a retrospective evaluation and review of the literature. Int J Infect Dis 10: 469-478, 2009.
12. Bosilkovski M, Krteva L, Caparoska S, Dimzova M. Osteoarticular involvement in brucellosis: Study of 196 cases in the republic of Macedonia. Croat Med J 45: 727-733, 2004
13. Moussa AR, Muhtaseb SA, Almudallal DS, Khodeir SM, Marafie AA. Osteoarticular complications of brucellosis: a study of 169 cases. Rev Infect Dis 9: 531-543, 1987.
14. Weil Y, Mattan Y, Liebegall M, Rahav G. Brucella prosthetic joint infection: a report of 3 cases and a review of the literature. Clin Infect Dis 36: 81-86, 2003.
15. Cordero-Sánchez M, Alvarez-Ruiz S, López-Ochoa J, Garcia-Talavera JR. Scintigraphic evaluation of lumbosacral pain in brucellosis. Arthritis Rheum 33: 1052-1055, 1990.
16. Bodur H, Erbay A, Colpan A, Akinci E. Brucellar spondylitis. Rheumatol Int 24: 221-226, 2004.
17. Gundes SG, Gundes H, Sarlak A, Willke A. Primary brucellar psoas abscess: presentation of a rare case of psoas abscess caused by *Brucella melitensis* without any osteoarticular involvement. Int J Clin Pract Suppl 147: 67-68, 2005.
18. Turan H, Serefhanoglu K, Karadeli E, Timurkaynak F, Arslan H. A case of brucellosis with abscess of the iliopsoas muscle, olecranon bursitis, and sacroiliitis. Int J Infect Dis 13: 485-487, 2009
19. Skalsky K, Yahav D, Bishara J. Treatment of human brucellosis: systematic review and meta-analysis of randomized controlled trials. BMJ 2008; 336: 701-4