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Brucella: A Rare Presentation

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Abstract: Brucella is most common zoonosis worldwide. It is characterized by high spiking fever, fatigue, chills, arthralgia. Here, we describe a case of female patient with brucella complicated with athralgia and high serum level of brucella antibody. Her manifestations responded well to doxycycline and rifampicin therapy.
Keywords: Brucella, Athralgia.

INTRODUCTION

Brucella is a most common zoonosis worldwide affecting domesticated animals and human [1]. It is characterized by high spiking fever, fatigue,chills, arthralgia, myalgia [1]. Here, we describe a case of female patient with Brucella complicated with athralgia and highest serum level of brucella antibody. Her manifestations responded well to doxycycline and rifampicin therapy.

CASE REPORT

A 27-year-old female presented with complaint of fever with chills and rigor on and off and multiple joint pain since last 20 days. She also gives history of generalized bodyache since 15 days.

According to patient she was alright 20 days back prior to admission. She suddenly started complaining of fever which occur on and off throughout the day and night. Fever was associated with chills and rigor. There was no history of evening rise of fever. She also complained of generalized bodyache with multiple joint pain including bilateral knee pain and pain in the hip with restrictions of movements.

She denied of having burning micturation, cough with expectoration, haemoptysis, per rectal or per vaginal bleeding and weight loss. Mensturation was normal and there was no history of similar illness in past. Patient was 22 days post natal care (PNC) with history of pregnancy induced hypertension.

She is a strict vegetarian with normal bowel and bladder habits. However she complained of reduced sleep and decreased appetite.

Laboratory investigations revealed Hb 4.7, TLC 8500/mm^3 and DLC as neurophil 78%, lymphocyte 19% eosinophils 02% and monocyte 01%. Platelet count was 3.98 lac/mm^3, MCV 72, MCHC 33%, MCH 23.7 pgm, RDW 21.3% and MPV 6.7%. Peripheral smear showed predominantly normocytic with mild hypochromia and mild anisopoikilocytosis and few macrooccasional macrocytic many tear drop cells.PS for Mp is neagative. Urine examination is normal, Bence Jones Protein negative, SGPT 37.2 IU/Lt and total bilirubin 0.7 mg/dl with direct 0.3 mg/dl and indirect 0.4 mg/dl.

ECG and 2-D ECHO normal study. Chest radiograph showed bilateral pleural effusion. Pleural fluid examination total protein 3.1 gm/dl, glucose 55.3 mg/dl, chloride 97.9 mg/dl, ADA 34 U/L and TLC was 1950 with P-30% and L-70%.

Bone marrow examination revealed evidence of mild myeloid hyperplasia especially normal marrow. Peripheral smear showed dimorphic mild to moderate hypochromic anaemia. CRP 96 mg/dl, FNAC of cervical lymph node showed reactive lymphadenopathy.ANA negative and blood culture and pleural fluid culture no growth. Brucella IgG positive (17.93) and IgM was 8.9.

Treatment with Tab. Doxycycline 100mg two times a day and Cap. Rifampicin 650 mg subsided fever. Patient improved dramatically after10 days.and was discharged with all parameters almost returning to normal. Evidence of Brucella IgG positive (17.93) and IgM was 8.9.clinched the diagnosis of Brucella.

DISCUSSION

Human brucellosis is the most common zoonosis worldwide affecting domesticated animals and human. The disease is the major health problem especially in developing countries [1]. Brucella is a major public health problem. Although cases are reported from all parts of world disease is more prevalent in the Mediterranean region, Western Asia, parts of Africa and Latin America [2, 4].

Brucellae are facultative intracellular, Gram-negative coccobacilli. Presently there are ten pathogenic species of brucella [4]. However, *B. melitensis*, *B. suis* and B. abortus are important Brucella species with active role in disease transmission [4, 5].

Exposure to infected domesticated animal is the main source of contracting brucella .However, ingestion of animal products such as unpasteurized milk and undercooked meat products are also important route of disease transmission [1, 2].

Fever is the most common presentation in brucellosis [1]. Hence brucellosis should always be considered for differential diagnosis of pyrexia of unknown origin [3]. Other common presentations with brucellosis are chills, fatigue, malaise and arthralgia. Our patient exhibited all these symptoms [1, 3, 4].

According to Mantur BG *et al*. bone and joint involvement is the common complication with brucellosis [1]. Present case indicates bone and joint involvement related to history of multiple joint pain.

At the end of first week of disease antibodies starts to appear in the blood with IgM appearing first followed by IgG [1].

The recommended treatment for acute brucellosis in adults includes rifampicin 600 to 900 mg and doxycycline 100 mg twice daily for period of six weeks [1]. Our patient responded well to combination therapy of rifampicin and doxycycline.

CONCLUSION

Brucella is a common zoonosis worldwide. Fever is the usual presentation and bone and joint involvement is the most common complication of Brucella. Judicious use of Doxycycline and Rifampicin act as an effective management strategy.

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