



Case Study

Human Brucellosis Presenting as Pyrexia of Unknown Origin with Splenic Micro Abscesses in a South Indian HIV Infected Patient: A Case Report

Swamy VHT¹, Mothi S N¹, Sudheer A P¹, Manini Vishak¹, Srirama^{1,*},
Pramod Kumar A²

¹Asha Kirana Hospital, Mysore, 570016, India

²JSS College of Pharmacy, Mysore-15, India.

ARTICLE INFO

A B S T R A C T

Received: 19 Sep 2016
Accepted: 02 Oct 2016

A 33 year old HIV positive male patient rearing one domestic cattle presented with complaints of low back pain for 30 days, Fever with Chills and Rigors and non productive cough of 15 days duration. USG Abdomen showed Splenomegaly with multiple small hypoechoic lesions and calcified foci. Diagnosis of Brucellosis was done based on the compatible clinical presentation and SAT titre of 1: 160. TB should be diagnosis of exclusion. HIV patients with PUO should be routinely screened for Brucellosis.

Key words: Brucellosis, Pyrexia of Unknown origin, Splenic micro abscesses, Standard Agglutination test

1. INTRODUCTION

Brucellosis is a multisystem disease with a broad spectrum of non-specific symptoms that generally occur within 2 weeks but sometimes up to 3 months after inoculation. The prevalence in South India varies with 3.54% from Goa¹ and 2.26 %², 4.41 %³ respectively among high risk individuals and patients with pyrexia of unknown origin from Karnataka. The diagnosis of human brucellosis is commonly done by testing the serum for Brucella agglutinins using the Standard Agglutination Test (SAT) in conjunction with a compatible clinical presentation. SAT titres 1:160 or above are considered diagnostic⁴; however, in endemic areas, a titre of 1:320 as cutoff may make the test more specific.

Corresponding author *

Dr Sri Rama Rao

Clinician

Ashakirana Charitable Trust@ Hospital

CA- 1, Hebbal Industrial Housing Area

Ring Road, Hebbal, Mysore 570016

Karnataka, India

Email id: sriramabrao@gmail.com

Brucellosis has been described rarely in patients infected with HIV^{5,6}, despite the fact that eradication of intracellular brucellae is largely dependent on cell-mediated immunity. HIV infection does not seem to increase the incidence of brucellosis. Since most cases occur in asymptomatic patients with relatively preserved immunity, the epidemiology, clinical presentation, diagnosis, response to therapy, and outcome are similar to those observed in non-HIV infected patients^{5,6}. We report a case presenting with Fever with Chills and rigors and low back ache since two weeks.

2. CASE REPORT

A 33 year old HIV positive male patient rearing one domestic cattle at home from Tumkur district of Karnataka was admitted in our hospital with complaints of low back pain for 30 days, Fever with Chills and Rigors and non productive cough of 15 days duration. He was on Anti Retroviral Therapy (AZT+ 3TC+ EFV) for 3 years with CD4 count of 242 cells/cumm. He had history of pulmonary Tuberculosis 3 years before for which he had been treated for 6 months. His vital signs were stable and general physical examination did not reveal any abnormal findings. Differential diagnosis considered was Tuberculosis, Brucellosis and Melioidosis. Since Melioidosis presents with pulmonary infiltrates or as a Sepsis syndrome it was ruled out. Tuberculosis was kept as a diagnosis of exclusion because there were no other features of Disseminated TB like para aortic/periportal lymph nodes. Standard agglutination test (SAT) for brucella showed Brucella Abortus – reactive in 1: 160 dilution and Brucella Melitensis- reactive in 1:80 dilution. Diagnosis of Brucellosis was done based on the compatible clinical presentation and SAT titre of 1: 160. Patient was treated with Doxycycline 100mg BD and Rifampicin 600 mg OD X 6 weeks as per WHO guidelines⁷. There were no fever spikes from 2nd day of treatment and patient was asymptomatic at 4 weeks follow up. Repeat USG abdomen at 6 week revealed resolution of splenic micro abscesses.

Table 1: Systemic Examination

Systemic Examination	
CardioVascular System	HeartSounds – Normal, No murmurs
Respiratory System	B/L Normal Vesicular Breath Souns heard
Abdomen	Soft, Non Tender, No Hepatomegaly, Spleen – Just Palpable

Table 2: Routine Investigations

Routine Investigations			
Heamoglobin	9.1gms%	Platelet Counts	3,07,000/cumm
Total Counts	5100cell/cumm	Hematocrit	24.4
Neutrophils	66%	ESR	135 mm/hr
Lymphocytes	30%	SGOT	40 u/ml

Monocytes	2%	SGPT	41 u/ml
Eosinophils	2%		
Widal Test	Negative		
Chest X-Ray and X-ray- Lumbosacral spine were normal			
USG Abdomen showed Spleenomegaly with multiple small hypoechoic lesions and calcified foci.			

3. DISCUSSION

Human brucellosis usually presents with fever associated with Sacroilitis or Spondylo arthritis⁸. Pyrexia of unknown origin is the second commonest presentation which may be associated with Hepatic micro abscecces. Splenic and pulmonary microabscesses are less common. Infective endocarditis, although rare, is the most devastating complication from systemic brucellosis and could require surgical intervention. Lymphadenopathy is found in 10% to 20% of cases and splenomegaly or hepatomegaly in 20% to 30% of cases. Other rare conditions include deep vein thrombosis, leukocytoclastic vasculitis, meningitis and nephritis. Ocular manifestations include optic neuritis, papilledema and uveitis. Common hematologic findings include leukopenia, anemia, and thrombocytopenia. Our patient showed many of the acute symptoms of human brucellosis like fever, Joint pains and splenomegaly with Splenic micro abscesses. Among HIV infected patients Splenic micro abscesses are a common presentation of disseminated Tuberculosis along with para aortic/ periportal lymphadenopathy. In resource limited settings were facilities for FNAC of these lesions are lacking there is a tendency for empirical treatment with Anti Tuberculosis drugs. This case shows that Tuberculosis should be diagnosis of exclusion. HIV patients with Pyrexia of Unknown Origin should be routinely screened for Brucellosis.

4. ACKNOWLEDGEMENT

We wish to thank Mr. Gururaja K.S and Mr. Varun Gururaja for providing the logistic support.

5. REFERENCES

1. Pathak A.D et al. Human brucellosis among pyrexia of unknown origin cases and occupationally exposed individuals in Goa Region, India. *Emerg Health Threats J.* 2014;7:23846.
2. Agasthya AS, Isloor S, Prabhudas K. Brucellosis in high risk group individuals. *Indian J Med Microbiol.*2007;25(1):28-31
3. Mangalgi SS, Sajjan AG, Mohite ST. Brucellosis: a cause of pyrexia of unknown origin. *Int J Bio Med Res.* 2012;3: 2054–2058.
4. Mantur BG, Amarnath SK. Brucellosis in India—a review. *J Biosci.* 2008;33:539–547.
5. Moreno S et al. Brucellosis in patients infected with human immunodeficiency virus. *Eur J Clin Microbiol Infect Dis.* 1998;17(5):319-26.

Int J Pharma Res Health Sci. 2016; 4 (5): 1435-1437

6. Sarguna P, Bilolika A K, Rao A, Mathur D R; Brucellosis I association with HIV infection- a case report. Indian J Med Microbiol. 2002; 20(4):221-2.
7. Joint FAO/WHO Expert Committee on Brucellosis, WHO. FAO/ WHO Expert Committee on brucellosis: sixth report; 1985 Nov 12- 19 November 1985; Geneva, Switzerland. Geneva: World Health Organization; 1986.
8. <http://emedicine.medscape.com/article/213430-clinical#b3>, Accessed on Mar 15, 2016

Conflict of Interest: None

Source of Funding: Nil