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BRUCELLOSIS -Rare Case Report

Medicine

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ABSTRACT

Human brucellosis is usually associated with occupational or domestic exposure to infected animals or their products. Farmers, shepherds, goatherds, veterinarians, and employees in slaughterhouses and meat-processing plants in endemic areas are occupationally exposed to infection.[1] Family members of individuals involved in animal husbandry may be at risk.[5] Although it is often difficult to differentiate food-borne infection from environmental contamination under these circumstances. Laboratory workers who handle cultures or infected samples are also at risk.[3] Travelers and urban residents usually acquire the infection through consumption of contaminated foods. In countries that have eradicated the disease, new cases are most commonly acquired abroad. Dairy products, especially soft cheeses, unpasteurized milk, and ice cream, are the most frequently implicated sources of infection; raw meat and bone marrow may be sources under exceptional circumstances. Infections acquired through cosmetic treatments using materials of fetal origin have been reported. Person-to-person transmission is extremely rare, as is transfer of infection by blood or tissue donation.[2] Although brucellosis is a chronic intracellular infection, there is no evidence for increased prevalence or severity among individuals with HIV infection or with immunodeficiency or immunosuppression of other etiologies. Here we present one such case of brucellosis.Brucellosis is commonly undiagnosed disease.[4]

KEYWORDS

Human brucellosis, serological diagnostics, weight monitoring as prognosis.

Introduction:

Brucellosis almost invariably causes fever, which may be associated with profuse sweats, especially at night. In endemic areas, brucellosis may be difficult to distinguish from the many other causes of fever. Left untreated, the fever of brucellosis shows an undulating pattern that persists for weeks before the commencement of an afebrile period that may be followed by relapse. The fever of brucellosis is associated with musculoskeletal sign and symptoms in some patients. Diagnostic clues in the patient's history include travel to an endemic area, employment in a diagnostic microbiology laboratory, consumption of unpasteurized milk products (including soft cheeses), contact with animals, accidental inoculation with veterinary. It is commonly associated with pancytopenia.6 Thrombocytopenia can lead to bleeding manifestations.[7891011]

Case Report :

A 25 yrs old female presented at medicine outpatient department with history of fever associated with chills since 4 months, initially high grade. Nausea since 2 to 3 days, cough since 2 to 3 days associated with whitish expectoration. There was no complaint of burning micturation, no rashes, no vomiting and no complaint of yellowish dicoloration of urine or sclera. Patient had complaint of sinusitis with fever and malaise for which she was admitted to private hospital in the month of April 2017, the fever was subsided for 15 to 20 days but developed again. General condition of the patient was guarded.

Investigations:

Date: 25/5/17

Blood report values are

Haemoglobin: 8.2gm% , total RBC: 3.44 mill/cmm, PCV: 24% , MCV: 70fL, MCH: 23.70pg, MCHC: 34%, RDW: 19.60%, >Total Leucocyte count: 2600/cmm, Platelet count: 223000/cmm, Differntial count: neutrophils: 61%, lymphocyte :37%, eosinophils:01, Monocytes01% .ESR: 08 mm in 1hour, SGPT: 27 IU/L.

Examination of urine is normal , no protein or sugar detected ,no pus or epithelial cells detected. No pathogen detected on Urine culture and sensitivity report.

Further blood examination shows urea: 30 mg/dl, creatinine : 0.75 mg/dl, total bilirubin: 0.7mg/dl. > No parasites detected.

Brucella IgG in serum is positive with 28.30 U/ml, while IgM is negative in serum with 2.82 U/ml. > her serum is neagtive for HIV.

Chest Xray (PA view) shows normal bilateral lung fields and hila.

USG Abdomen shows mild hepatomegaly of liver with 147 mm size, gallbladder appears minimally distended. Normal spleen and pancreas. The right kidney shows 7mm calculus at midpole and 6mm calculus at lower pole, while the left kidney shows 4mm calculus at midpole. Uterus appear normal, no free fluid in abdomen.

Date: 24/4/17

Bone marrow biopsy shows Pancytopenia. The section also shows hypercellular marrow spaces, focal aggregates of epitheloid cells and stromal degeneration. The above conditions in addition to presence of histiocytes indicates high marrow cell turnover, probably attributed to autoimmune condition. Also granulomatous condition need to be excluded.

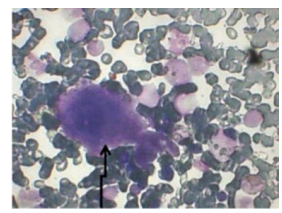

Figure-1 Bone marrow biopsy showing megakaryocyte

Treatment:

Rifampicin 450mg/day plus doxycycline 100mg/day.patient was admitted and kept under surveillance. Weight monitored every week. Patient followed up for weight gaining. Patients weight improved by 10kg over 1.5 month from 35kg to 45kg. Patient was on treatment and general condition improved a lot. .patient followed up after 3 months

Discussion:

Conclusion:

The most important differential diagnosis is tuberculosis.This point influences the therapeutic approach as well as the prognosis, given that several antimicrobial agents used to treat brucellosis are also used to treat tuberculosis. the diagnosis must be based on a history of potential exposure, a presentation consistent with the disease, and supporting laboratory findings.

Clinical message :

Brucellosis should be evaluated cautiously when presented to opd. Regular blood and serological reports help in keeping up prognosis. The medical treatment should continue for 3 months and then follow up of weight and blood counts for further assess the course of disease and treatment modification if necessary.

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