Introduction

Brucellosis is a major zoonotic disease. Brucella is a coccobacillus, gram negative, non sporing and non motile aerobic bacterium whose hosts are mostly animals.[1,2] After this infection the incidence of abortion, premature rupture of membranes and preterm delivery is more.[3] The case for spontaneous abortion in human is because of absence of erythritol in the human placenta.[4] It is common in Mediterranean region, East Africa, Arabian Gulf region. It is endemic in Sudi Arabia.[5] The diagnosis of brucellosis was established by demonstrating a brucella titre of >1:320 in a standard tube agglutination test (STAT) and a titre of >1:160 in 2-Mercaptoethanol (2-ME) for patients with sign and symptoms compatible with brucellosis.

Case report:

A 25 year old with obstetric score of G2P1L1 with 14 weeks period of gestation came to our hospital with complaints of fever since 10 days associated with chills and sweating also. Fever was high grade, intermittent in nature. Fever is associated with chills and sweating. Not associated with bleeding pv or loss of weight or loss of appetite. She did not had any other symptoms. Her past history and family history were not significant. Obstetric history- Last child was one year old and it was term vaginal delivery.

General Physical Examination showed, temperature >101 F, pallor was present, no lymphadenopathy. All the blood investigation were normal. Patients was put on symptomatic treatment for fever in view of pregnancy. But her fever did not come down, so she was investigated further for fever. At that moment blood culture was taken and the report showed antibody titre positive for brucella with >1:320.

She was started with antimicrobial therapy with doxycycline 100 mg twice daily for 6 weeks with rifampin 900 mg/day. She was symptomatically better. Her ultrasound report about the pregnancy showed normal foetus of 20 weeks period of gestation after the treatment. Now she is in her 7th month of gestation.

Discussion:

Brucellosis is a world wide zoonosis and it is challenging due to the diverse clinical presentations and needs special laboratory for confirming the diagnosis. Maternal infection with brucella during pregnancy can lead to significant morbidities like abortion, intra uterine death and preterm labour.[6] It is a systemic infection that can involve many organs and tissues. Brucellosis may be asymptomatic. Symptoms are generally non specific. Except for fever and malaise which is seen in 80-95% of the patients. Symptoms may appear suddenly over 1-2 days or gradually over 7 days or more. Common symptoms like fever, malaise, sweating, myalgia, tiredness and arthralgia. Signs like patients looks ill, pallor, lymphadenopathy, splenomegaly, hepatomegaly and skin rash. Investigation like white cell count be normal, Anaemia will be present. Blood cultures are positive in 10-90%. Antibody testing is the most reliable method for diagnosing brucellosis. Tube agglutination method where if the titres of 1:160 or higher is diagnostic. For many years, the standard treatment for brucellosis has been the combination therapy with Streptomycin and Tetracycline or Doxycycline.[7] In 1986 World Health Organisation(WHO) recommended the use of 6 weeks course of doxycycline plus Rifampin. Several researchers reported a relapse rate between 14-17% for this regimen.[8,9&10] In brucellosis the aim of treatment is to control illness and to prevent both complications and relapses. Thus in order to prevent the resistance to rifampin, a good antituberculous drug can be used. Doxycycline-Rifampin-Aminoglycoside(triple drug regimen) has lowest relapse rate when given for more than 6 weeks.[11] Trimethoprim-Sulfamethoxazole(TMP-SMZ) is also effective in treating pregnant women, either as a single agent or in combination with Rifampin or Gentamycin.

Conclusion:

The main way of preventing brucellosis is by using hygiene and pasteurizing all the milk that is to be ingested by human. Experiments have shown that co-trimoxazole and Rifampin are both safe drugs to use in treating pregnant women with brucellosis.
Conflict of interest:
The authors declare that there are no conflict of interest

Source of funding:
None.

Acknowledgment:
Authors acknowledge the scholars whose articles are cited and included in references of this manuscript. The authors are also grateful to authors/editors/publishers of all those articles and journals from where the literature for this article has been reviewed and discussed.

References: