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Case Report

Leptospirosis in pregnancy: a case report

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ABSTRACT

Leptospirosis is a leading zoonotic disease worldwide with more than 1 million cases in the general population per year. There is significant mortality due to both delays in diagnosis as well as adequate clinical suspicion. There is also an overlap between the signs, symptoms and biochemical disturbances associated with leptospirosis in pregnancy and the presentation of pregnancy associated conditions, such as pre-eclampsia (PET), acute fatty liver of pregnancy (AFLP) and haemolysis elevated liver enzymes low platelets (HELLP) syndrome. This is a case report of a pregnant woman with leptospirosis who delivered a healthy fetus.

Keywords: Leptospirosis, Pregnancy, Jaundice

INTRODUCTION

Leptospirosis is a leading zoonotic disease worldwide with more than 1 million cases in the general population per year. It is a spirochaetal zoonosis which is caused by the species *Leptospira interrogans* and causes a wide spectrum of clinical manifestations in humans.[1]

It is particularly prevalent in tropical and subtropical countries where environmental as well as socioeconomic conditions are favorable for its transmission. Human infections occur either by direct contact with urine or tissue of an infected animal or indirectly through contaminated water or soil or vegetation.[2] Man is the dead-end host.

There is significant mortality due to both delays in diagnosis as well as adequate clinical suspicion.[3]

This is a case report of a pregnant woman with leptospirosis who delivered a healthy fetus.

CASE REPORT

Mrs. XYZ, an 18-year primigravida at 34 weeks and 3 days of gestation presented to the antenatal outpatient department (OPD) with complaints of jaundice and increased blood pressure.

The patient had been apparently well and the pregnancy uneventful till about 3 months back when she developed complaints of yellowish discoloration of the eyes, burning micturition, fever and myalgia. With these complaints, she had gone to a local hospital where she was prescribed some medications and the symptoms resolved. However, no official documentation was available.

Currently the patient presented with yellowish discoloration of her eyes and skin, myalgia and burning micturition.

On general physical examination, the patient had a blood pressure of 144/86 mmHg, pulse rate of 86 beats/min which was regular and normal in volume and a respiratory rate of 16 breaths/min. She was afebrile. There was however presence of icterus bilaterally in the bulbar conjunctiva.

On per abdomen examination, the skin over the abdomen was yellowish in color. On palpation the abdomen was soft with no organomegaly.

The height of the uterus corresponded to 34 weeks of gestation with cephalic presentation, the liquor seemed adequate and the fetal heart was regular.

On per speculum examination, the cervix and the vagina were healthy with no discharge.

The patient was admitted and a complete blood work up along with imaging studies was done.

All the investigations were normal except for an isolated increase in the total serum bilirubin (on admission it was 8.17 mg/dl).

The patient underwent further investigations and a medicine consultation was done in which she was advised the test for leptospirosis. She came IgM positive for leptospirosis which clinched the diagnosis. She was further put on antibiotics for a week, with weekly monitoring of her liver function and delivered a healthy baby at 38 weeks of gestation after going into spontaneous labor. There were no maternal and fetal complications. Also, the neonate had no evidence of congenital leptospirosis. The patient was discharged with the baby on the third postnatal day and was kept on regular follow up. As her IgM titres were low, she was allowed to breastfeed the baby. Her liver function tests returned to normal within 2 weeks of delivery. The patient was counselled about the prevention and control of leptospirosis.

Figure 1: Bilateral icterus present on the bulbar conjunctiva post delivery.

DISCUSSION

Leptospirosis is an acute bacterial infection caused by spirochetes belonging to genus leptospira that can lead to multiple organ involvement and fatal complications.[3] Leptospirosis is considered as the most widespread zoonosis in the world.[4] It has a wide geographical distribution and occurs in tropical, subtropical and temperate climatic zones. Infection in pregnant women may be grave leading to severe fetal and maternal morbidity and mortality.

There is also an overlap between the signs, symptoms and biochemical disturbances associated with leptospirosis in pregnancy and the presentation of pregnancy associated conditions, such as pre-eclampsia (PET), acute fatty liver of pregnancy (AFLP) and haemolysis elevated liver enzymes low platelets (HELLP) syndrome.[6]

In a retrospective study by Shaked et al 15 previously reported cases of leptospirosis in pregnancy were reviewed, out of these cases 8 women with leptospirosis had a spontaneous. abortion and it was noted that women are more likely to spontaneously abort if the disease occurs in the early months of pregnancy.[7] Thus early pregnancy is more prone to this disease as well as the fetal outcome is also unfavourable.

The other complications of leptospirosis during pregnancy include intrauterine infection with oligohydramnios, fetal death and premature labor. Therefore, it must be kept in differential diagnosis in cases of antenatal patients presenting with acute febrile illness and bad obstetric history. The increased awareness among gynecologist of clinical manifestations leptospirosis and timely laboratory diagnosis will help reduce morbidity and mortality associated with disease.[8]

Thus, leptospirosis in pregnancy is not an indication for termination of pregnancy as it is highly treatable when diagnosed early with vigilant fetal monitoring.

CONCLUSION

It can be concluded that leptospirosis must be kept in mind as a differential diagnosis in any pregnant patient presenting with complaints of icterus, fever, myalgia, deranged liver enzymes and low platelets which can result in early diagnosis and treatment. This prevents the significant mortality and morbidity associated with the disease.

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