

Tuberculous meningitis in pregnancy in New Zealand: a case report

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Introduction

In the current COVID climate, it is easy to dismiss non-specific symptoms of fever, headache, cough and malaise as viral infection. We present an interesting case report of tuberculosis presenting in pregnancy.

Case Report

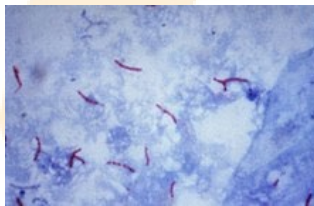
A 33 year old Indian woman presented several times to the Hutt Hospital emergency department with a month-long history of headache, fevers and cough. She was 17 weeks gestation in her second pregnancy.

After two negative COVID swabs and unremarkable basic bloods, a CT-head was performed showing multiple foci suggestive of tuberculosis infection.

Mycobacterium tuberculosis was detected in the CSF on lumbar puncture, consistent with a diagnosis of tuberculous meningitis. A retrospective review of the chest-xray film was suggestive of miliary disease. Acid-fast bacilli were later cultured in sputum samples.



Chest X ray showing miliary tuberculosis ¹



Mycobacterium tuberculosis visualization using the Ziehl-Neelsen stain ²

Outcome

The patient was commenced on rifampicin, isoniazid, pyrazinamide, ethambutol and prednisone under the care of the infectious diseases team. A notification was made to medical officer of health and contact tracing commenced.

She was followed up extensively by the obstetrics team and no adverse effects of the disease or treatment were identified during the pregnancy. She later delivered a healthy, well-grown infant after a spontaneous labour at term.

Discussion

Tuberculosis in pregnancy is associated with significant maternal morbidity, however with successful treatment there are no associated long term effects on the mother or baby.

While rare in New Zealand, TB is serious global cause of morbidity and mortality, and women in pregnancy are not spared the disease's effects. Women who have recently arrived from areas with a high prevalence of TB (such as South East Asia, Pacific Islands, or Africa) are of greatest risk

Discussion Continued

The development, clinical presentation and progression of TB is not altered by pregnancy, nor does the infection need to alter the course of the pregnancy itself, outside other obstetric indications. The symptoms of extra-pulmonary TB are frequently non-specific and are often attributed to the physiological changes of pregnancy, or other, more common viral illnesses, as high-lighted by this case.

Congenital TB is rare, but can occur with transplacental spread. It has a high mortality rate. All of the anti-TB drugs cross the placenta and have been detected in fetal tissues in low concentrations, however isoniazid, rifampicin, and ethambutol are all considered safe. There is less available safety data for pyrazinamide use in pregnancy, however there is no evidence of teratogenicity and it is recommended by the World Health Organization for use in all pregnant women with TB across all trimesters.

This case highlights the importance of not overlooking tuberculosis as a differential diagnosis in our increasingly diverse society.

References

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