

Photoquiz

Lateral cervical swelling and fatigue in a pregnant woman: what is your diagnosis?

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A 36-year-old 21-week pregnant Moroccan woman presented to our hospital with a one-year history of fever, fatigue and right lateral cervical swelling. At the onset, symptoms seemed to regress with antibiotic therapy, but reappeared a year later during pregnancy. On physical examination, the patient had right lateral cervical swelling, 50x40 mm in size, ulcerated, painful with secretion (Figure 1). She was afebrile, complaining of intense fatigue.

Blood tests showed high erythrocyte sedimentation rate (49, n.v. 0-20); WBC 11,200/ μ l; NE% 80.3; LY% 12.7; Platelets 138,000/ μ l; Hb 10.7. HIV test, VDRL, TPHA, HCV, and HBV antibodies were all negative. Microscopy examination of sputum for acid-fast bacilli (AFB) was negative. No chest X-ray was performed because the patient feared potential complications to the fetus. Neck ultrasound showed reactive lymph nodes.

WHAT IS YOUR DIAGNOSIS?



- LYMPHOMA
- CUTANEOUS LEISHMANIASIS
- TUBERCULAR LYMPHADENITIS
- SKIN INFECTION
- SKIN CANCER

The patient had tubercular lymphadenitis. In fact, polymerase chain reaction for *Mycobacterium tuberculosis complex* on the ulcerated material was positive, showing sensitivity to rifampicin, while it was negative for leishmania, bacteria and cancer. The patient was treated with rifampicin, isoniazid and ethambutol. At the end of the treatment, she fully recovered. The child was healthy and tested negative for tuberculosis (TB) at the age of 6 months.

Every year about 700,000 women die of tuberculosis and over three millions contract the disease. TB is the third leading cause of death among women aged 15-44¹⁻⁴. The exact incidence of tuberculosis in pregnancy is expected to be as high as in the general population¹⁻⁶. High-burden countries may underestimate its prevalence because many women do not have access to healthcare when pregnant¹⁻⁴.

During pregnancy, TB may lead to severe consequences affecting both mother and child⁶. The effects of TB on pregnancy may be influenced by many factors, including the severity of the disease, how advanced the pregnancy has gone at the time of diagnosis, the presence of extra-pulmonary spread, HIV infection and the type of treatment^{1,3,5-12}. Obstetric complications of TB in pregnancy include a higher rate of spontaneous abortions, small-for-date uterus, preterm labor, low birth weight, and increased neonatal mortality. Congenital TB, though rare, is associated with high perinatal mortality⁶.

The major concern about TB for pregnant women is the delay in diagnosis, defined as the time from the onset of symptoms to the confirmation of TB diseases⁶. The main reason for this delay is that women seek health services and prenatal care at a late stage of pregnancy. Moreover, when pregnant women acquire TB, the disease is more difficult to diagnose because TB symptoms such as fatigue, shortness of breath, sweating, cough and mild fever are similar to physiological symptoms of pregnancy. In addition to the wide range of presentations, extra-pulmonary TB often makes the diagnosis and treatment difficult⁶. The procedures for TB screening and diagnosis for pregnant women include the tuberculin sensitivity test (TST/PPD), followed by the sputum test (acid-fast bacillus AFB) and the shielded chest X-ray, although pregnant women usually refuse to undergo X-ray because of potential consequences on fetal health¹¹. In HIV-infected patients diagnosis is even more difficult, since the weak immune reaction may cause false negative TST and make early TB symptoms unclear¹¹.

The management of TB in pregnancy requires a multidisciplinary approach, with a dedicated team including the obstetrician, neonatologist, counseling unit, infectious diseases and pulmonary doctors⁶. Most pregnant patients should be started on treatment as soon as the diagnosis is made. However, since the majority of teratogens effects occur in the first trimester of pregnancy, treatment is usually started from the second trimester. The use of first-line antitubercular drugs in pregnancy is considered safe for the mother and the baby by the World Health Organi-

zation (WHO) and other international medical societies. Rifampicin, isoniazid, and ethambutol are the first-line drugs, while the use of pyrazinamide in pregnancy is usually avoided by many physicians, due to adverse fetal effects on animals and the unavailability of adequate data on its teratogenicity in humans¹⁻⁴. Presently, many international organizations now recommend its use, including the WHO. The use of streptomycin is forbidden because it causes fetal malformations and eighth-nerve paralysis, with defects ranging from mild hearing lost to bilateral deafness¹⁻⁴. As rifampicin increases the risk of postpartum hemorrhage, it needs to be associated with vitamin K. Babies born to TB-infected mothers should be started on isoniazid prophylaxis for six months, after which they can be vaccinated if they test negative¹⁻⁴.

Some major controversial issues in TB care during pregnancy remain to be addressed, such as the safety, reliability, and feasibility of TB screening in the prenatal period, drug therapy for pregnant multi-drug resistant women, and delayed treatment until the postpartum period in case of latent tuberculosis infection.

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