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Isolated Tubercular Cervical Lymphadenopathy in Pregnancy -A Case Report

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Abstract **Case Report**

Tuberculosis (TB) is a chronic granulomatous inflammatory lesion which is a leading cause of maternal and fetal morbidity and mortality. With improvement of economic and social conditions and the use of anti-tubercular therapy, there has been decline in pulmonary tuberculosis. But extra pulmonary tuberculosis presentations form a major proportion of new cases now a days. Tubercular lymphadenitis is the commonest form of extra pulmonary tuberculosis. Cervical lymph nodes are commonly affected which may present as unilateral, painless, slowly progressing swelling and resembles several conditions (like secondary metastasis from breast or stomach, lymphoma, reactive lymphadenitis) Histology is required for diagnosis. We present a case report of a 28 years old pregnant woman with cervical lymphadenitis. FNAC revealed tubercular lesion and she was prescribed with anti-tubercular regimen. Subsequently she delivered a healthy term baby and completed treatment regimen with resolution of neck swelling. Both pregnancy and TB can adversely affect each other and lead to poor outcome. So suspicion, detection and treatment of TB in pregnancy is important to reduce maternal and neonatal morbidity and mortality for achieving SDG goal by 2030.

Keywords: Extra pulmonary Tuberculosis, Cervical lymphadenopatly, Pregnancy.

INTRODUCTION

Tuberculosis is a leading Cause of human suffering and loss of life in a developing country like Bangladesh. Tuberculosis (TB) is a granulomatous inflammatory process caused by infection with mycobacterium tuberculosis that affects one third of world's population [1]. Extra pulmonary TB accounts for about 7-30% of TB cases and lymphadenitis accounts for 17-43% of cases [2]. Cervical lymph nodes constitute the most common site of involvement of tuberculous lymphadenitis [2]. It presents as a painless, slowly progressive swelling of a single group of nodes and involvement is unilateral. If may resemble reactive lymphadenitis, metastatic deposit from breast or stomach, lymphoma. Confirmation of diagnosis is done by histology.

The tuberculosis pregnancy interaction is like a double edged sword, one edge being the impact of tuberculosis on pregnancy and new born, while the other edge is effect of pregnancy on tuberculosis [3]. Active tuberculosis in pregnancy is associated with increased risk of growth retardation, prematurity, low birth weight and perinatal mortality [4]. So suspicion, detection and appropriate treatment of tuberculosis in pregnancy is important as pregnancy and TB adversely affect each other.

We present a case of isolated, unilateral cervical lymphadenitis in a pregnant patient and discuss the appropriate management of this situation and pregnancy outcome.

CASE REPORT

Mrs X, 28 years old Para 1+0 a garments worker came in a private chamber with the complains of 17+ Weeks pregnancy and swelling in left side of neck. The swelling was gradually increased in size and was painless. There was history of occasional low grade fever but no complains of upper abdominal pain, abdominal lump, anorexia, cough, and weight loss or upper limb lesions. She gave no family history or

exposure history of TB. She was a normotensive, non-diabetic woman and her menstrual cycle was regular before this pregnancy. Examination revealed a female in good health, on per abdominal examination uterus was16 weeks pregnancy size otherwise no abnormality was detected. One supraclavicular swelling was palpable on left side measuring 5×4 cm in diameter, mildly tender, firm, smooth surfaced and mobile. Both sided breasts, axillae and upper limbs were normal.

Investigations carried out included complete blood count, hemoglobin 10.8 g/dl, white blood cells 6.2×10^3/ µl lymphocytes 40%, and Neutrophils 52% monocyte 7%. FNAC of enlarged lymph node showed chronic granulomatous inflammatory reaction suggestive of tuberculosis. USG revealed 16^+ weeks alive fetus. Thereafter on the basis of opinion of medicine specialist, otolaryngologist and obstetrician anti tubercular treatment was started with 4 FDC for initial 2 months (Intensive phase) and 2 FDC (continuation phase) for next 4 months. During treatment course she was not under regular follow up. She made a contract with us over telephone after 6 months of treatment and informed that she delivered a healthy term baby per vaginally during continuation phase of treatment and there was resolution of neck swelling.

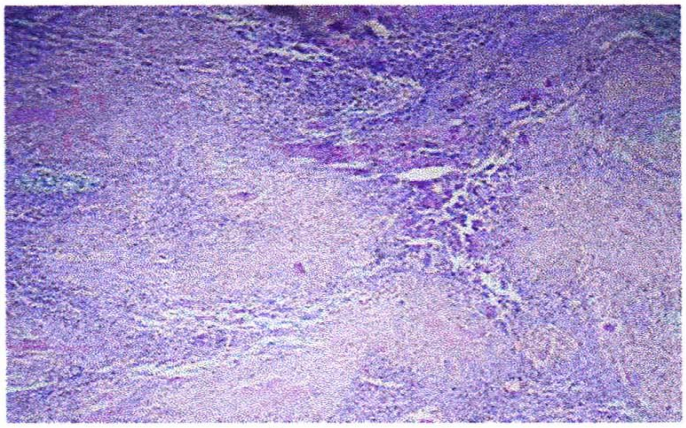

Figure 1. *Typical caseating granuloma with presence of multinucleated giant cell H&E × 40.*

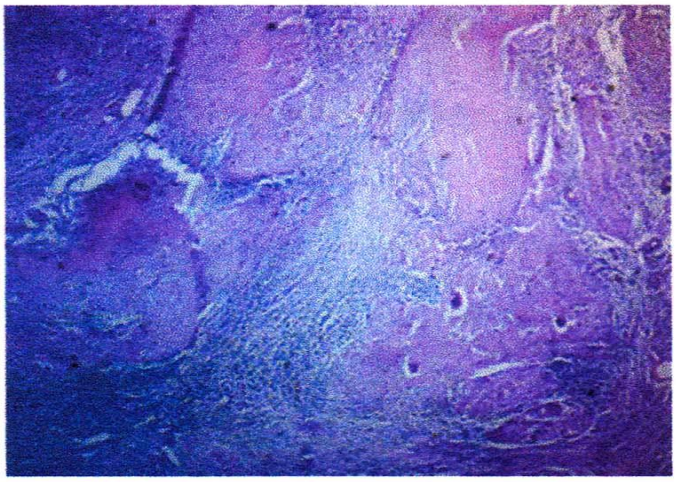

Figure 2. *Chronic granulomatous inflammation consistent with tuberculosis H&E 100.*

DISCUSSION

With improvement of economic and social conditions and the use of effective DOTS program, there is decline in Pulmonary TB for several decades. But extra pulmonary TB incidence had been reported increase in recent years due to advent of acquired immunodeficiency viral infection [1, 2, 5]. Tubercular lymphadenopathy is the common form of extra pulmonary TB and cervical lymph nodes are commonly affected [1, 5-7]. TB lymphadenopathy forms 35% of extrapulmonary TB of which two third involve cervical lymph nodes [8]. Illiteracy and lack of awareness is directly associated with higher prevalence of extra pulmonary TB in the form of tubercular lymphadenopathy [1].

Cervical lymph node enlargement commonly presents a problem of differential diagnosis with reactive lymphadenitis, secondary metastasis from stomach, breast carcinoma, and lymphoma. The major diagnostic challenge on clinical evaluation was that our patient had no constitutional symptoms or contact history of TB and there were no abnormality revealed on abdominal and breast examination. Carcinoma stomach is excluded in this case as it is prevalent between age group 30-70 years 9, our patient belonged to less those 30 years. Breast carcinoma was kept in consideration as major prevalent age group is 20-50 years 5, but axillary nodes are commonly involved in breast carcinoma than cervical nodes. Thereafter, we made suspicion for tuberculosis as femeles are commonly affected1, she worked in a crowded environment in a garment factory, she lives in endemic area and about 57% of affected patients usually have no systemic symptoms [5].

Fine needle aspiration cytology (FNAC) is widely accepted as the accurate, sensitive, specific and cost effective procedure in the diagnosis of lymphadenopathy [1]. Biopsy and surgical interventions during pregnancy may not be possible as there is risk of preterm labour, poor accessibility of the lesion and anesthetic risk to the fetus. Our patient underwent FNAC and result showed epithelioid granuloma with langhen's type giant cell suggestive of TB. Tuberculin test should be carried out in all patients suggestive of having TB. Previously report suggested diminished tuberculin sensitivity in pregnancy [10, 11] but recent studies revealed no difference in pregnant and non-pregnant population [12-16]. As Mantoux test is more accurate [10] we advised it to our patient and result was positive.

The management of TB in pregnancy is a multidisciplinary approach with the team comprising Medicine specialist, Obstetrician, otolaryngologist, neonatologist, public health officials. Treatment is achieved through the use of Directly observed therapy, short course (DOTS) where drugs isoniazide, rifampicin, ethambutol and pyrazinamide for 2 months and isoniazide, rifampicin for 4 months are used. Although previously pyrazinamide was not prescribed due to risk of teratogenecity but many international organizations recommend its use including International union against tuberculosis and lung disease, British thoracic society, American thoracic society, WHO and revised national tuberculosis control program of India [10]. Our patient was managed by DOTS regimen and at the end of course there was resolution of cervical lymph node swelling. TB lymphadenopathy has no adverse effect on fetomaternal outcome than extra nodal TB [4]. Because lymphadenitis is often diagnosed early and it rarely causes debility or systemic toxicity [4, 17]. Our patient underwent an uneventful pregnancy with delivery of a healthy term fetus.

CONCLUSION

The incidence of extra pulmonary tuberculosis is increasing recently. The diagnosis of this condition is often delayed due to diversity of presentations.

Tubercular lymphadenitis is the common form of extra pulmonary TB but it mimics many other pathological conditions from which diagnosis is made by histology. Both TB and pregnancy can adversely affect each other. For achieving SDG (sustainable development goal) for ending TB and reducing maternal and perinatal deaths by 2030 there should be suspicion of TB in a pregnant patient with lymph node enlargement. So that diagnosis can be made early by simple investigations and patient can be managed promptly.

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