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# A Rare Case of Cervical Tuberculosis Mimicking Carcinoma Cervix: A Case Report

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#### **ABSTRACT**

This is an unusual case of an 17 year old unmarried girl who presented with complaints of amenorrhoea of 2 year duration. On per speculum examination cervix was replaced by an irregular friable growth 3 X 3 cm. A clinical diagnosis of carcinoma cervix was made but the cervical biopsy revealed multiple epitheloid cell granulomas and langerhan type giant cells with caseations suggestive of tuberculosis cervix. The patient was started on Category I Directly observed treatment, short course (DOTS) and she responded to 6 months of antitubercular therapy.

Key Words: Tuberculosis, Amenorrhoea, Epitheloid granuloma, Langerhans cells, DOTS.

#### INTRODUCTION

Tuberculosis of the cervix is a rare disease. The first case was reported by Morgagni in 1744. Genitourinary tuberculosis accounts for 5% of all female genital tract infections. Cervical tuberculosis accounts for 0.1-0.65% of all cases of

tuberculosis [1]. Tuberculosis more frequently affects the upper genital tract- namely fallopian tubes and endometrium [2]. Tuberculosis cervix accounts for 5% of the cases of genital tract tuberculosis [3]. It usually occurs in women of child bearing age group. A diagnosis of genital

tract tuberculosis has profound implications for the woman seeking fertility. The diagnostic dilemma arises due to varied clinical manifestations and a battery of serological and bacteriological tests available[3] .We present such a case due to rarity of the condition and because it clinically mimicked carcinoma cervix.

#### **CASE REPORT**

A 17 year old unmarried girl came to the department of obstetrics and gynaecology with chief complaints of amenorrhoea of 2 year duration. She has history of weight loss for the past 2 years. No bladder or bowel disturbances. The patient was a non smoker, non alcoholic, no history of sexual contact and did not have any other significant medical or surgical illness in the past. No history of fever, night sweats, exposure to tuberculosis. No history of tuberculosis in the past and no history of tuberculosis in the family. Patient was thin built and averagely nourished with body weight of 40 kg. General physical examination was normal with no palpable lymph nodes and no pallor. Systemic examination did not reveal any abnormality. On per speculum examination cervix was replaced with polypoidal growth of 3X3 cm which was friable [fig1] . On bimanual pelvic examination same growth was felt and uterus was anteverted, normal size and both fornices were free. Perrectal examination did not reveal any induration or nodularity of parametria and rectal mucosa was freely mobile with no nodularity.

Laboratory examination revealed ESR of 35mm fall in first hour and positive mantoux (23mm).All other routine blood investigations were normal. Pap smear revealed epitheloid cell clusters without dysplasia. Biopsy revealed multiple epitheloid cell granulomas and langerhan type giant cells with caseastions suggestive of tuberculosis [fig2]. Endometrial biopsy was found to be normal. Chest radiograph was found to be normal. Sputum and urine sample were negative for acid fast bacilli. CECT revealed bulky cervix. HIV 1 & 2 were negative. Patient was started on category 1 Directly observed treatment, short course(DOTS ) with four antitubercular drugs ( Isoniazid , Rifampicin, Pyrazinamide and Ethambutol) for 6 months and discharged After 6 months the cervix had normal appearance and she resumed her menstruation 8 months after completion.

#### **DISCUSSION**

Genital tuberculosis is common in 20-40 years age group in developing countries. Genital organs most frequently affected includes Fallopian tube (95-100%), endometrium (50-60%) and ovaries (20-30%) [2] . Tuberculosis of cervix is rare and accounts for 0.1-0.65% of all cases of tuberculosis and 5-24% of genital tract tuberculosis [4]. Genital Tuberculosis is a major socioeconomic burden in India afflicting 14million people, mostly in the reproductive age group. It is involved in about 5-16% of cases of infertility among Indian women, though the actual incidence may be underreported due to asymptomatic presentation

of genital tuberculosis and paucity of investigations [3].

Pelvic organs are infected from a primary focus, usually the chest by hematogenous spread. The cervix is infected as part of this process by lymphatic spread or by direct extension. In rare cases, cervical tuberculosis may be a primary infection, introduced by a partner with tubercular epididymitis or other genitourinary disease. It has been suggested that sputum used as a sexual lubricant may also be a route of transmission [2]. In extremely rare cases primary cervical tuberculosis may occur if a person sits on infected sputum.

Symptomatic genital tuberculosis can present with abnormal vaginal bleeding, menstrual irregularities like scanty menstruation amenorrhoea, abdominal pain, constitutional symptoms and infertility. Cervical tuberculosis may present as papillary or vegetative growths on cervix and/or ulcerations simulating invasive cervical cancer [2] . The diagnosis of cervical tuberculosis is usually made by histological examination of the cervical biopsy, which reveals caseating granulomas. Staining for acid fast bacilli was not found to be very useful. Isolation of the mycobacterium is the gold standard for diagnosis but a third of cases are culture negative. Therefore, the presence of typical granulomata is sufficient for diagnosis if other cases granulomatous cervicitis are excluded or a identified. The primary focus differential diagnosis for granulomatous disease of the cervix includes amoebiasis, schistosomiasis, brucellosis,

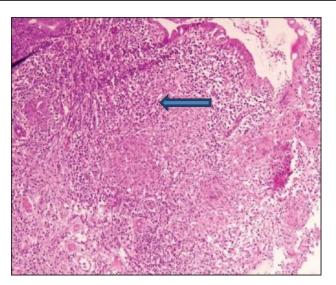
tularaemia, sarcoidosis, and foreign body reaction [6]. Newer modalities of diagnosis like ELISA can aid in the diagnosis [1].

The cervix should respond to six months of standard antitubercular therapy [1]. That is four months of treatment with 4 drugs (Isoniazid, Rifampicin, Pyrazinamide and Ethambutol) and 2 months of treatment with Isoniazid and Rifampicin. But the chance of pregnancy in females with genital tuberculosis is poor (5%), even after completion of treatment and out of them only 2% carry the pregnancy to term. In vitro fertilization has provided a ray of hope.

This case emphasizes that though uncommon, tuberculosis is an important alternative in the differential diagnosis of a malignant appearing lesion of the cervix. With resurgence of tuberculosis worldwide, there should be a high index of suspicion of tuberculosis in women with an abnormal looking cervix.



**Fig 1-** Per speculum showing polypoidal mass arising from the cervix



**Fig 2-** Multiple caseations and epitheloid cell granulomas.

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