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## Case Report

# Cervical growth in a young woman: a case report

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### ABSTRACT

Genital tuberculosis, a silent killer of menstrual function and fertility potential is common in developing countries like India. Cervical TB is extremely rare and it accounts for 0.1-0.65% of all the cases of tuberculosis and 5-24% of all the genital tuberculosis cases. The clinical presentation of genitourinary tuberculosis is variable in nature and it can also be asymptomatic. Here, we are reporting a rare case of cervical tuberculosis clinically masquerading as cervical malignancy presenting with secondary amenorrhoea.

**Keywords:** Genital tuberculosis, Cervical tuberculosis, Cervical growth, Cervical malignancy, Secondary amenorrhoea, Granuloma

### INTRODUCTION

Genital tuberculosis, a silent killer of menstrual function and fertility potential is common in developing countries like India. Cervical TB is extremely rare and it accounts for 0.1-0.65% of all the cases of tuberculosis and 5-24% of all the genital tuberculosis cases.<sup>1</sup> The clinical presentation of genitourinary tuberculosis is variable in nature and it can also be asymptomatic. We are reporting this case, as cervical tuberculosis is rare and can easily masquerade clinically as cervical malignancy.

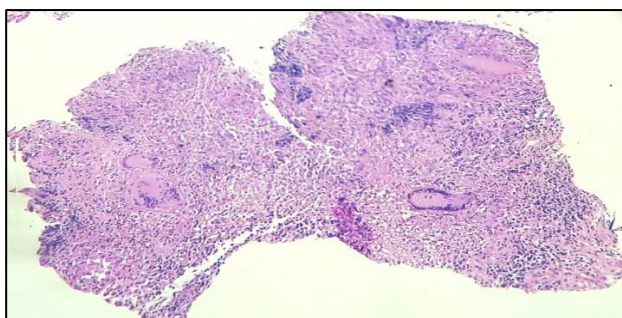
### CASE REPORT

Mrs. X, a 22 year old nulliparous lady presented to our outpatient clinic with complaints of secondary amenorrhoea for 2 years. Her previous menstrual cycles were regular. A treatment with progesterone and a combination of oestrogen and progesterone by a private practitioner failed to induce the withdrawal bleeding. She was married for 4 years and had one spontaneous abortion 3 years ago. She was hypothyroid on thyroxine 25 µg per day. Her mother had pulmonary tuberculosis and was on DOTS I therapy. She denied history of fever and chronic cough.

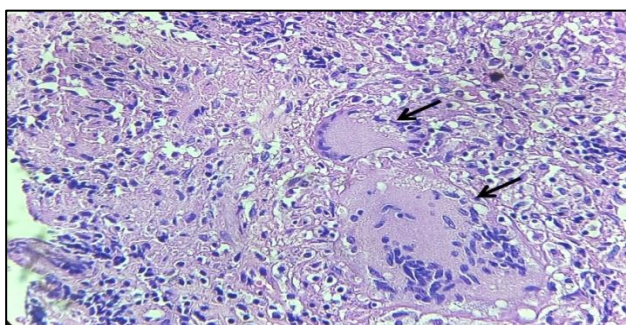
On examination patient was thin built with body mass index (BMI) of 16.4. She had no significant lymphadenopathy. Systemic examination did not reveal any abnormality. On speculum examination, cervix was replaced by an irregular growth which was bleeding on touch. Uterus was retroverted, normal size and mobile. On rectal examination, parametrium did not reveal any induration or nodularity. A provisional diagnosis of carcinoma cervix was made clinically.

Pap smear showed nonspecific inflammation without any evidence of intraepithelial lesion or malignancy. On Colposcopic examination, the growth had no acetowhite or iodine negative areas. Her chest radiograph was normal. Her mantox test and sputum for Acid fast bacilli was negative. A punch biopsy from the cervical growth showed caseating granulomas suggestive of cervical tuberculosis (Figures 1, 2). No endometrium was obtained on endometrial sampling.

After Pulmonologists opinion she was started on DOTS CAT-1. The patient responded well to antitubercular therapy and at 6 months after completion of treatment, the cervix had an almost normal appearance.



**Figure 1: Low power view of a cervical stromal fragment showing multiple confluent caseating epithelioid granulomas. Central areas of caseous necrosis (long arrow) characterized by acellular, structureless eosinophilic material and multiple Langhans-type multinucleate giant cells with peripherally arranged nuclei noted. (short arrows) (H and E; 100 X).**



**Figure 2: High power view of well-formed caseating epithelioid granulomas. Numerous epithelioid cells (modified macrophages that appear elongated and "slipper shaped") and two Langhans-type multinucleate giant cells (arrows) and intervening areas of caseous necrosis noted on the left side (short arrows), (H and E; 40X).**

## DISCUSSION

Genitourinary Tuberculosis (TB) is more prevalent in the developing countries like India, affecting nearly 14 million people, mostly in the reproductive age group.<sup>2</sup> In genital tuberculosis, the organs are infected by a haematogenous spread from a primary focus in the lungs. Cervical TB often occurs secondary to tuberculous salpingitis and endometritis.<sup>3</sup> Rarely, primary infection can occur by sexual contact with an infected partner or use of sputum as a sexual lubricant.<sup>4</sup>

The diagnosis of cervical TB is difficult clinically as the symptoms and physical examination usually do not give clues to the disease. The macroscopic findings of cervical TB can vary. TB cervix may present as hypertrophy of the cervix, papillary or vegetative growth, a miliary

appearance and/or ulceration simulating invasive cervical cancer.<sup>1,5</sup> The diagnosis of cervical TB is usually made by histological examination of a cervical punch biopsy specimen. Microscopically, extensive chronic inflammation with the presence of caseating or non-caseating granulomas will be present in most of the cases. Staining with acid-fast bacilli may not reveal the organisms and up to one-third of the patients can be culture negative. Molecular probes may be more sensitive than culture, but also have reduced specificity. Hence, presence of granulomas alone is considered enough to make a diagnosis after excluding other causes of granulomatous cervicitis. The other rare causes of granulomatous cervicitis are schistosomiasis, brucellosis, tularemia, sarcoidosis or a foreign body reaction.<sup>6</sup> Our patient had both uterine and cervical involvement of tuberculosis leading to secondary amenorrhoea and infertility. Fertility is generally poor even after treatment, owing to endometrial and tubal involvement at presentation and subsequent healing by fibrosis.

Though we commonly make a clinical diagnosis of cervical malignancy for any abnormal growth in the cervix, we should have a high index of suspicion of cervical tuberculosis in tuberculosis prevalent areas. Early diagnosis and treatment may help in limiting the extent of damage.

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