

# A Case Report on Female Genital Tuberculosis in a Teenage Girl

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**Abstract:** Tuberculosis (TB) is an increasing public health concern worldwide, with millions of cases each year. It is one of the most important causes of infectious morbidity and mortality. On a global scale, TB has a devastating impact especially in developing nations. The morbidity and mortality due to tuberculosis (TB) is high worldwide, and the burden of disease among women is significant, especially in developing countries. The World Health Organization (WHO) declared TB, a global emergency in 1993 and recommended the Directly Observed Treatment Short-course (DOTS) strategy to tackle the disease globally, especially in developing countries.<sup>1</sup> The Revised National TB Control Programme (RNTCP) of India has incorporated the DOTS strategy all over India by the end of 2005 diagnosing about 71 per cent cases and curing above 87 per cent cases with a seven-fold reduction in mortality.<sup>2</sup> The incidence of female genital tuberculosis, a type of extrapulmonary TB (EPTB) is increasing in young women globally. Genital tuberculosis may be asymptomatic and diagnosis requires a high index of suspicion. Moreover, the disease may masquerade as other gynaecological conditions and can go undetected.

## 1. Introduction

Female genital tuberculosis (FGTB) was first reported by Morgagni in 1744 on the autopsy of a young woman who died of TB peritonitis.<sup>3</sup>

Tuberculosis (TB) is a major public health problem worldwide despite a declining trend in mortality, with effective diagnosis and treatment. Female genital tuberculosis (FGTB) is caused by Mycobacterium tuberculosis (rarely Mycobacterium bovis and/or atypical mycobacteria). Genital TB usually occurs secondary to TB in other sites (primarily, the lungs). The spread is generally through haematogenous or lymphatic routes. Genital TB in females is well recognized as an important aetiological factor for infertility in countries with high prevalence of TB. Tuberculous infection of the female genital organs can result in infertility, dyspareunia, menstrual irregularities and chronic pelvic inflammatory disease (PID). Early detection and suitable combination treatment regimens with adequate dosages of drugs can reduce damage and future infertility in these women.

## 2. Case Scenario

A 16 year old girl who attained menarche at 13 years of age, presented with complains of amenorrhoea for past one year, foul smelling vaginal discharge for one year and lower abdomen pain for one week.

In the past, in 2018, patient had episode of heavy menstrual bleeding for which she was treated with tranexamic acid. She was given oral contraceptive pills for 3 cycles after which she had regular cycles for 8 months. Patient had complains of amenorrhoea since March, 2019. In August,

2019, she consulted outside where she was started on oral progesterone and oral antibiotics. Patient was also given oral oestrogen and progesterone for one cycle. Yet she did not resume cycles.

She gives history of loss of weight, 5kgs over in 2 months and chronic cough with expectoration for 6 months. On examination, patient is thinly built, anaemic.

P/A: Soft, tenderness present in suprapubic area

L/E: Profuse foul smelling vaginal discharge present

Hymen opening present-admits 1 finger

Cervix feels irregular with granular projections especially in posterior lip.

Rectal mucosa feels intact.

P/R: Uterus was found to be normal in size

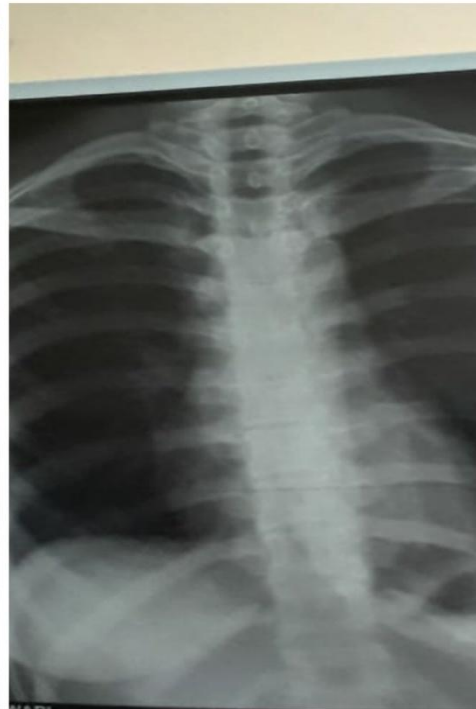
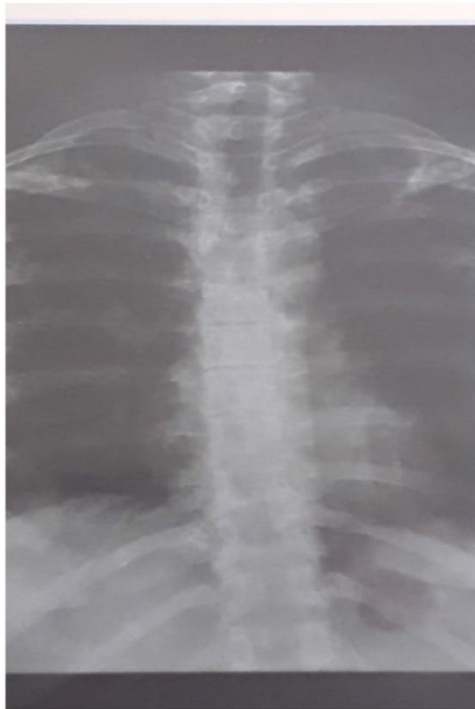
U.S.G. done showed bulky uterus with thickened endometrium measuring about 1.9mm along with bulky right ovary with presence of free fluid in P.O.D

Vaginal swab test was found positive for AFB (Acid fast bacilli) smear and culture. Culture showed growth of gram negative bacilli (pseudomonas).

Chest x-ray revealed reticular opacities. HR-CT showed multiple diffuse irregular patchy areas of nodular consolidation in bilateral upper lobes sparing the lower lobes. Tree bud appearance with inter-septal thickening in bilateral upper lobes. Traction bronchiectasis in bilateral lower lobes. All features were suggestive of pulmonary tuberculosis.

CRP and ESR were also found to be raised

Patient was started on DOTS therapy for 6 months. Post ATT follow up revealed cure of tuberculosis and patient was sputum negative. U.S.G. revealed endometrial thickness of 8mm. Patient was started on oral contraceptive pills for 2 months following which she resumed normal menstrual cycles.



Most of the patients present in advanced stage with scarring, severe fibrosis and adhesions and treatment outcomes, especially with regard to infertility, are poor. Hence, early diagnosis and correct treatment is vital to avoid complications and to restore fertility.

#### 4. Case Peculiarities

Genital tuberculosis is usually reported in women in the reproductive age group or in post-menopausal category. Presence of genital tuberculosis in teenage is a rare occurrence and hence a unique presentation.

#### References

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### 3. Discussion

Genital TB may be asymptomatic or may present with atypical symptoms or mimic other conditions. Although demonstration of the TB bacilli confirms the diagnosis, other indirect tests are useful. Despite availability of various diagnostic techniques, the dilemma to diagnose genital tuberculosis still exists. Therefore, Female Genital TB needs a thorough systematic clinical examination with high degree of suspicion and use of intensive investigations. The possibility of Female Genital TB should be considered in patients with chronic pelvic inflammatory disease not responding to standard antibiotic treatment, unexplained infertility or in women with irregular menstrual cycle or postmenopausal bleeding and persistent vaginal discharge (where genital neoplasia have been excluded). There is no single diagnostic test available to confirm the diagnosis of Female Genital TB. High degree of clinical suspicion, elaborate history taking, systemic examination, battery of tests to document M. tuberculosis as well as imaging methodologies for characteristic structural changes are essential for the diagnosis.<sup>4</sup>