

Primary tubercular cervicitis with atypical presentation: A case report

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Abstract

Tuberculosis (TB) is a common infection in the developing countries and involves almost all body organs. Genital TB is usually secondary to pulmonary or extragenital TB and most commonly involves the upper genital tract. Primary tubercular cervicitis is very rare. Here is a unique case report of primary tubercular cervicitis with atypical presentation (endocervical TB and normal appearing ectocervix with normal Papanicolaou test). A lady of reproductive age group presented with primary infertility for 5 years and secondary amenorrhea for 2 years with yellowish discharge per vaginum for 2 years which stopped 5 months back. Hysteroscopic findings revealed endocervical mass which was excised and histopathology of endocervical tissue mass showed tubercular cervicitis. Antitubercular drugs were started for 6 months and she responded well. She conceived with in vitro fertilization technique.

Keywords: Amenorrhea, hysteroscopy, infertility, tubercular cervicitis, vaginal discharge

Key Message: Primary tuberculosis of cervix is a rare form of genital TB. As it has no specific symptoms and signs, so a high index of suspicion of TB in females with abnormal vaginal discharge is required especially with normal appearing cervix. Here is a unique case report of primary tubercular cervicitis with atypical presentation (endocervical TB and normal appearing ectocervix with normal Papanicolaou test).

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INTRODUCTION

There have been case reports of cervical TB simulating cervical cancer but there were no case reports documented as endocervical TB with normal appearing ectocervix. So this case report is a unique case with atypical presentation as patient came with primary complaints of infertility with amenorrhea and vaginal discharge. She was diagnosed as Tubercular Cervicitis as an incidental finding on hysteroscopy which was primarily planned for uterine synechiolysis.

Tuberculosis is highly prevalent and considered as major socioeconomic burden in developing countries. Genitourinary tuberculosis accounts up to 5% to 24% of cases that is usually seen in young women of child bearing age. Tuberculosis more frequently affects the upper genital tract-namely, the fallopian tubes, endometrium, and the ovary.^[1] Tuberculosis of the cervix is rare incidental finding and accounts to 0.1% to 0.65% of all cases of tuberculosis^[2] and 5% to 15% cases of genital TB.^[3] The case has been presented here due to rarity of this condition.

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CASE HISTORY

PATIENT INFORMATION

A 30 years old nulliparous female presented with a chief complaints of primary infertility for 5 years and secondary amenorrhea for 2 years with non-foul smelling yellowish discharge per vaginum for 2 years which stopped 5 months back. She had been married for 5 years and had been trying to conceive since then. There was no history of bleeding per vagina or itching or post coital bleeding. She had earlier history of normal menstrual cycles. She had no past or family history of tuberculosis. There was no history of recent weight loss, cough, fever, or night sweats.

CLINICAL FINDINGS

General physical examination and per abdomen examination was normal with no organomegaly. Per speculum examination revealed healthy cervix with pin point os, no discharge seen, and vagina was healthy. On bimanual examination, uterus was anteverted and normal in size. There was no adnexal mass or forniceal tenderness. Per rectal examination was normal.

DIAGNOSTIC ASSESSMENT

Laboratory investigations including hematological, biochemical parameters, and hormonal assays (serum Follicle Stimulating Hormone (FSH), Luteinizing Hormone (LH), Estradiol, Thyroid Stimulating Hormone (TSH)) were normal. Chest radiograph was normal. Antibody tests for human immunodeficiency virus (HIV), syphilis infection, and hepatitis B surface antigen were negative and the patient did not have any kind of immunodeficiency. Routine cervical Papanicolaou

(Pap) smear was normal. Ultrasound findings showed normal size and shaped uterus, endometrial thickness was 4mm, bilateral ovaries were normal with total antral follicle count of 4. The adnexa was normal. There was a hyperechoic mass seen in endocervical canal of size 0.5 cm × 1 cm.

THERAPEUTIC INTERVENTION AND FOLLOW UP

On hysteroscopy an endocervical mass of size 0.5 cm × 1 cm was seen which was excised and sent for histopathological examination. The endometrial cavity showed flimsy synechiae in fundal area which were excised with scissors. The endometrium appeared atrophic and endometrial curettings were scanty in amount and sent for histopathological examination. The bilateral ostia appeared normal with no synechiae seen. The histological examination of endocervical tissue showed presence of multiple epithelioid cell granulomas containing Langhans giant cells with caseous necrosis suggesting granulomatous cervicitis which was consistent with tubercular cervicitis [Figure 1]. The histological examination of endometrial curettings suggests atrophic features. TB culture and acid fast Bacillus (AFB) smear were negative. To search for possible mode of transmission the patient was then evaluated for primary pulmonary TB which turned out to be negative. Spouse of the patient was evaluated for pulmonary and genitourinary TB by doing urine and semen analysis for AFB as well as ultrasound of the testes and the epididymis but the possible transmission could not be detected. The patient was started on ATT. After completing the course of Antitubercular Treatment (ATT) for 6 months, she conceived with assistance of in vitro fertilization method.

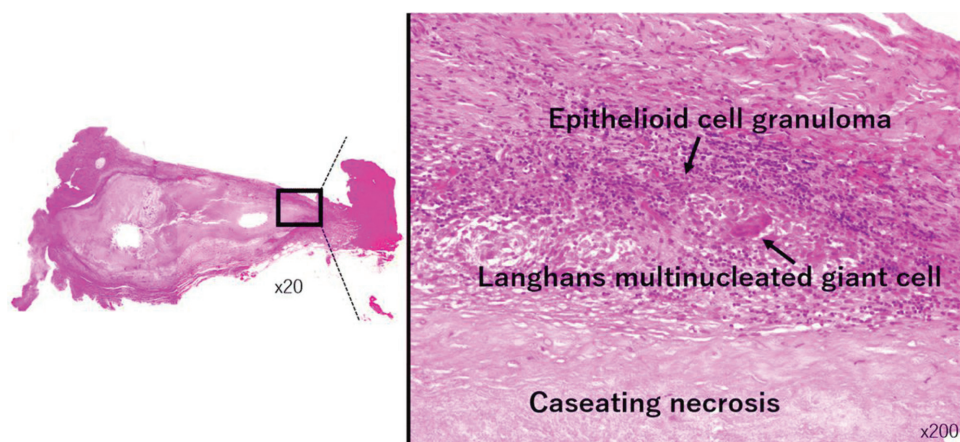


Figure 1: Histological features of TB cervicitis.

DISCUSSION

TB is frequently observed in third world countries like Africa and Asia. The actual incidence of genital TB is difficult to assess as many patients are asymptomatic.^[3] Genital TB involves fallopian tubes (90–100%), endometrium (50–60%), ovaries (20–30%), cervix (5–15%), and vulva and vagina (<1%). 5% to 10% of infertile women suffer from tuberculosis.^[4] Genital TB occurs mostly secondary to a primary focus elsewhere, the commonest site being the lungs (50%), followed by other sites such as lymph nodes (40%), the kidneys, joints, gastrointestinal tract, or as part of a generalized miliary infection.^[3] The mode of spread is generally hematogenous or via lymphatics and rarely from direct contiguity with an intraabdominal organ or affected peritoneum.^[3,5] The cervical TB is mostly due to descending spread from the infected uterine cavity or by lymphatic spread and primary cervical TB is very rare in which the male sexual partner has been suspected and be the source of the disease. There can be presence of *Mycobacterium tuberculosis* in the semen of men suffering from urogenital tuberculosis or the practice of using saliva for lubrication before intercourse by some men may also be a source of infection in cases of open pulmonary tuberculosis.^[3] In most cases of cervical TB, there are no gross changes in the cervix. The macroscopic findings of cervical TB may be papillary or vegetative growths, a miliary appearance, and/or ulceration present thus simulating invasive cervical cancer.^[2,6] The endocervical involvement usually presents with increase secretion of mucin.^[3] The diagnosis of cervical TB is usually made by histological examination of a cervical biopsy specimen. The demonstration of caseating granulomas with epithelioid cells, Langhans giant cells, and caseous necrosis are diagnostic of cervical TB.^[2,3]

There have been case reports of cervical TB simulating cervical cancer but there were no case reports documented as endocervical TB with normal appearing ectocervix. So this case report is a unique case with atypical presentation as patient came with primary complaints of infertility with amenorrhea and vaginal discharge. She was diagnosed as Tubercular Cervicitis as an incidental finding on hysteroscopy which was primary planned for uterine synechiolysis.

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Conflicts of interest

The authors report no conflicts of interest.

COMMENTRY

Commentary primary tubercular endocervicitis rarest of the rare presentation

Tuberculosis (TB) of the cervix is a rare presentation of extra pulmonary genital TB (GTB). The authors of a case-report on this subject in this issue report a well-documented case of endocervical TB.^[7]

Antitubercular treatment is highly effective in curing TB anywhere in the body even though the diagnostic approach to different forms of extra-pulmonary TB may differ. Diagnosis of cervical TB remains a challenge for the following reasons: (i) rarity of the condition; (ii) most common symptom being vaginal discharge which is a rather common complaint; (iii) the examination findings often lead to suspicion of an otherwise more common condition of cervical carcinoma. The cervix may look ulcerative, hypertrophic, polypoidal, or may have a visible growth.^[8] There are no specific imaging findings except for the presence of hypertrophic cervix or a non-specific nodule as was seen in this case on ultrasound.^[9] A casual approach to transvaginal ultrasound can easily miss cervical abnormalities unless specifically looked for and reported.

GTB is a pauci-bacillary disease. The microbiological confirmation of GTB is difficult and falsely negative results are common. A comprehensive battery of tests is often required to confirm the diagnosis. Diagnosis of TB is usually a surprise finding in one of the laboratory reports during work up of infertility.

The case report provides the key message that GTB is still an important cause of infertility but is often under diagnosed, overlooked, and an underreported disease. The main reasons for delayed diagnosis include a low index of suspicion and varied types of presentation. The TB etiology should be considered in all forms of atypical presentations even for seemingly common diseases. Appropriate sampling should be always done at the time of initial workup. The need for a meticulous and precise workup of otherwise difficult to diagnose cases is stressed upon.^[8] It is also important to undertake scientific reporting of GTB from high prevalent countries to enrich current medical literature.

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