

CASE REPORT ON TUBERCULOSIS OF CERVIX: RARE ENTITY

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ABSTRACT

This is the case report of a rare form of genital TB, cervical tuberculosis, which accounts for only 5-15 % of genitourinary tuberculosis (GUTB). Although pulmonary tuberculosis remains the commonest and the most infectious type of tuberculosis, extra pulmonary tuberculosis is becoming more prevalent in reproductive age women of developing countries. We report a case of 24 years old married nullparous lady presented with vaginal discharge and mild lower abdominal pain despite repeated treatment with antibiotics. She became amenorrhea and failed to conceive for the last 5 years despite regular, unprotected sexual activity. She visited different health facilities before her referral to Jimma University Medical Centre where genital tuberculosis was confirmed histologically by the presence of caseous necrosis and epithlioid granuloma on cervical biopsy

KEYWORDS: Cervical tuberculosis, amenorrhea, infertility

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INTRODUCTION

The usual incidence of cervical involvement in genital TB is 5–15%¹. In women with genital TB, four major presenting complaints are described with varying frequencies: infertility, abnormal bleeding, pelvic pain, and amenorrhea². As with other parts of the female genital tract; there are no macroscopic changes in the cervix that are specific for TB. The cervix may appear normal or inflamed, and its condition may resemble invasive carcinoma, both grossly and with the colposcope. The most common type is the ulcerative form, although papillomatous and miliary forms may also occur².

Histopathologic examination reveals granulomatous inflammation and sometimes marked inflammatory atypia along with frequent hyperplastic mucosal changes. Caseation may be seen. Endocervical involvement is common and usually results in an increased secretion of mucin. The actual incidence of genital TB cannot be determined accurately in any population because it is estimated that at least 11% of patients are asymptomatic and the disease is discovered incidentally. Incidence varies greatly according to socioeconomic and public health conditions; it usually parallels the incidence of pulmonary and abdominal TB². Female genital TB is rare in western world but relevant in developing countries and is associated with significant morbidity in the form of menstrual dysfunction, tubal block, peritubal adhesions, intrauterine adhesions, and perihepatic adhesions. It is mostly acquired by hematogenous route and always occurs secondary to pulmonary (commonest) or extra pulmonary tuberculosis such as gastrointestinal tract, kidneys, skeletal system, meninges and miliary tuberculosis³.

TB can cause infertility, but usually it does not show any kind of symptoms until the infection has advanced to a severe level affecting the fertility in women by total destruction of the endometrium with resulting amenorrhea secondary to end-organ failure⁴. The tuberculous process generally is localized to the endometrium, is most extensive in the fundus, and decreases toward the cervix².

Systemic symptoms tend to be relatively mild, if present, and may include weight loss, fatigue, and a tendency toward a persistent mild evening elevation of temperature^{5,6}.

CASE REPORT

Twenty four years old nulliparous married lady presented to our hospital with a complaint of whitish vaginal discharge, mild lower abdominal pain of 3 years and was taking unspecified medication at different times from different health facilities with no improvement.

She also gave history of failure to menstruate for the last 5 years. Her menses was becoming minimal three years before it totally stopped. She had history of failure to conceive for the last 5 years despite regular unprotected sexual activity. She has history of use of one dose of injectable contraceptive 6 years back. Otherwise she has no history of significant weight loss, chronic cough, anorexia, undue fatigue, fever, postcoital bleeding, dyspareunia, and previous history of treatment for tuberculosis (TB), no urinary leakage.

On examination, she was well looking, all vital signs were within normal range, BMI was 19.6 kg/m², no abnormal chest finding, no abdominal or pelvic mass. She had mild tenderness over lower part of abdomen up on deep palpation. Digital pelvic examination and bimanual examination were non revealing other than minimal, odorless whitish discharge.

Blood group and Rh A+, hemoglobin 13 gm/dl, RBS 98 gm/dl, U/A: normal, VDRL: negative, chest x ray: normal, no abdominal or pelvic mass, US: normal size of uterus. Endocervical curettage was taken and revealed hyperplastic glands with intense chronic inflammation, focal area of caseous necrosis and epithelioid granuloma consistent with genitourinary TB affecting cervix (figure 1).

She was put on antitubercular treatment for six months, and then biopsy was taken from endo cervix which revealed no evidence of tuberculosis. The vaginal discharge subsided, and lower abdominal pain improved, but menstruation did not resume.

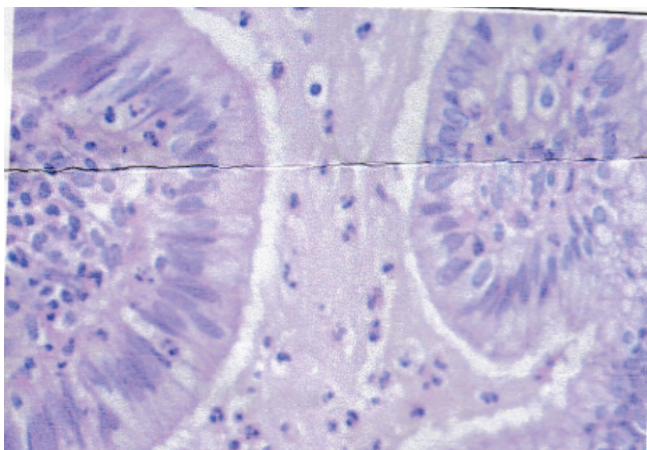


Fig1:- Pathology result shows hyperplastic endocervical glands with intense chronic inflammation with focal area of caseous necrosis and epithelioid granuloma

DISCUSSION

TB is a bacterial infection frequently seen in less developed countries. It is a frequent cause of chronic pelvic inflammation and infertility. While lung and lymph node localization are common, genital organ involvement is rare. TB involvement in the female genital tract in almost all cases is secondary to extragenital tuberculosis. The fallopian tubes are affected most commonly (90%), followed by the endometrium (50%) and the ovaries (10-30%). The cervix is rarely involved and accounts for 5-24% of the cases of genital tract⁷.

The route of contamination can be direct, by inoculation of the bacillus to the cervix,

thus constituting the primitive form of this location. This form could be transmitted by a partner suffering from epididymal or urogenital tuberculosis. Usually it is secondary to lymphatic dissemination or contiguity from genital tuberculosis, itself secondary to hematogenous spread from a pulmonary localization⁷.

The diagnosis of genital tuberculosis is usually made in a woman of reproductive age. However it can occur at any age, from pre-puberty to menopause. In the young girl in pre-pubertal period, TB is responsible for adhesions with primary amenorrhea, difficult to cure. In postmenopausal period, tuberculosis of the uterine cervix is a real diagnostic problem with the cervical cancer or endometrial cancer⁹.

Fertility is generally poor even after treatment, owing to endometrial and tubal involvement at presentation and subsequent healing by fibrosis¹⁰.

The diagnosis of TB is based on the identification of *M. tuberculosis*. Biopsy is a frequent first diagnostic step, and although its sensitivity suffers from sampling errors, it can be very helpful if granulomata are found or, less commonly, if smears or cultures are positive for *M. tuberculosis*¹¹.

The treatment of tuberculosis of the cervix is essentially based on antibacillary bactericidal drugs (Rifampicin, Isoniazid, pyrazinamide, streptomycin) and antibacillary bacteriostatic drugs (Ethambutol, Ethionamide). The efficacy and safety of treatment should be carefully monitored. The surgical management of uterine adhesions currently imposes a hysteroscopy to improve fertility. The use of surgical treatment should be reserved for the management of complications (fistulas or abscesses) or in case of resistance or relapse in well conducted medical treatment. This treatment must be preceded and followed by drug treatment. The post treatment surveillance of tuberculosis of the cervix requires regular speculum examination and control biopsies, if necessary⁸.

CONCLUSION

Cervical tuberculosis is an uncommon genital location. A definitive diagnosis of TB requires isolation of tubercle bacilli, although many authorities accept a diagnosis based on histological examination, which confirms granulomata. The treatment of tuberculosis is essentially medical. Surgical intervention may be indicated in persistent and recurrent disease despite adequate medical treatment.

CONSENT

Consent was obtained from patient for publications of this case report and accompanying images

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