

Clinical Case Report

Tuberculosis of the cervix: An uncommon cause of vaginal discharge in a post-menopausal woman

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ABSTRACT

Discharge per vaginum is a common symptom of a variety of gynaecological diseases. Among post-menopausal women, atrophic vaginitis, cervicitis and cervical carcinoma are common causes of this symptom. We present a 64-year-old woman who had foul-smelling discharge per vaginum for the past 1 year. Per speculum examination revealed an unhealthy-looking cervix and white discharge. On bi-manual examination, the cervix was flush with the vagina. There was no obvious growth felt, the exact uterine size could not be ascertained and the finger was stained with thick discharge. A biopsy of the cervix showed epithelioid cell granulomas and a diagnosis of tuberculosis was made. The patient responded to antitubercular therapy. Tuberculosis of the cervix may be a rare cause of foul-smelling discharge per vaginum in post-menopausal women but there should be a high index of suspicion of this condition, especially in areas where tuberculosis is common. We report this post-menopausal woman owing to the rarity of tuberculosis of the cervix mimicking a gynaecological malignancy.

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INTRODUCTION

Tuberculosis (TB) is a major health problem across the world. The situation is worse among developing countries—almost 60% of all patients of TB live in six developing countries including India.¹ The most common organ affected by TB is the lungs; however, any other organ of the body such as lymph nodes, pleura, abdomen and brain can be involved.² Genital TB among women is not uncommon.² It usually involves the fallopian tubes and presents as infertility in women during the reproductive age.² TB involving the cervix is rare and mostly reported in retrospective studies.^{3,4} Its clinical features are non-specific and usually mimic carcinoma of the cervix when it presents after menopause. We report a post-menopausal woman with cervical TB.

THE CASE

A 64-year-old homemaker (para 2 living 2) presented to our

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outpatient department with foul-smelling white discharge per vaginum for 1 year and dysuria for 6 months. She also complained of loss of appetite for 1 month. There was no past history of chronic cough, fever, night sweats, vulval and vaginal symptoms or genital malignancy. Her bowel and bladder habits were normal and there was no history of consumption of tobacco and alcohol. There was no history of malignancy in the family. She had been diagnosed to have hypertension 25 years ago and diabetes mellitus 10 years ago for which she was taking amlodipine (5 mg) and metformin (1 g). She was also taking escitalopram for depression.

On general physical examination, there was no pallor, icterus or pedal oedema. There was no lymphadenopathy. Abdominal examination was non-contributory. Local examination revealed a healthy vulva. Per speculum examination showed an unhealthy-looking cervix covered with white discharge; the vagina was healthy but discharge was present. On bi-manual examination, the cervix was flush with the vagina, no obvious growth was felt, bilateral fornices were normal and a thick discharge stained the finger. The exact size of the uterus could not be ascertained. Per rectal examination was normal. With these findings, we considered the possibility of carcinoma of the cervix.

Her haemoglobin was 12.2 g/dl, leucocyte count 7000/dl and erythrocyte sedimentation rate 19 mm in the first hour. Her liver function tests, blood urea and creatinine were normal. Urine examination showed 10–12 white blood cells/high power field; culture grew *Escherichia coli* sensitive to nitrofurantoin. Ultrasound of the abdomen and pelvis showed normal uterus and adnexa. Positron emission tomography (PET) scan showed a metabolically active right external iliac lymph node. However, there was no fluorodeoxyglucose uptake in the lung, large airways, pleura, heart and mediastinum or in the abdomen.

Pap smear and multiple cervical biopsies were taken for the diagnosis. Cervical smear study revealed extensive inflammation. There was no evidence of an intraepithelial lesion or malignancy. Cervix biopsy showed multiple epithelioid cell granulomas with Langerhans giant cells (Fig. 1). Stain for acid-fast bacilli was

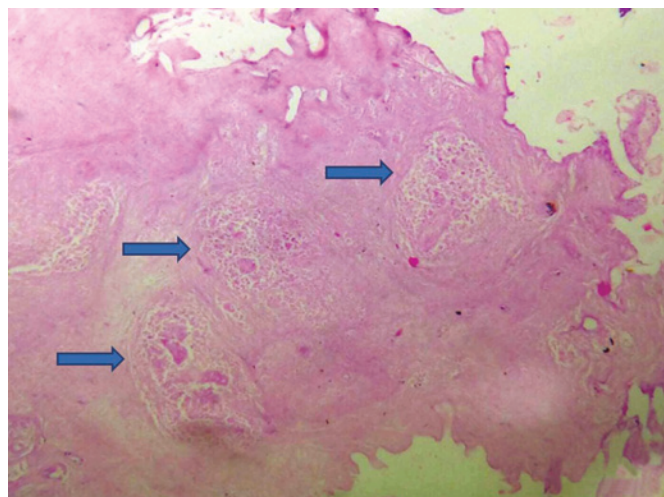


FIG 1. Biopsy of the cervix (H&E, ×10) showing multiple confluent caseating granulomas (arrows). Ziehl–Neelsen stain showed no organism

negative. A diagnosis of TB of the cervix was made on the basis of histopathology. The patient was started on category-1 antitubercular treatment under the directly observed treatment strategy. The patient is under regular follow-up for the past 2 years and is doing fine with no vaginal discharge.

DISCUSSION

The actual incidence of genital TB cannot be determined accurately in any population because as many as 11% of patients remain asymptomatic and the disease is discovered incidentally.¹ Generally, genital TB is a disease of young women during their reproductive age. It usually involves the fallopian tubes, endometrium and ovaries. The commonest presentation of genital TB is infertility. Other common symptoms include dysmenorrhoea, oligomenorrhoea, menorrhagia, pain abdomen and dyspareunia. TB of the cervix is rare and accounts for 0.1%–0.65% of all cases of TB and 5%–24% of genital TB.^{3,4} The diagnosis of TB of the cervix is difficult due to non-specific symptoms. The clinical presentation may mimic malignancy.⁵ Among post-menopausal women such as the index case, it is almost impossible to rule out carcinoma by clinical examination alone.

The source of *Mycobacterium tuberculosis* causing TB of the cervix is debatable. The primary focus in patients with TB of the cervix is more likely to be a proximal pelvic organ including fallopian tubes, ovaries or endometrium. Spread to the cervix is either via lymphatics or haematogenous. However, the primary focus heals and is not detectable in most patients. Rarely, cervical TB may be the primary lesion as in our case.^{5–7} A possible mechanism of transmission of TB to the cervix may be via sexual intercourse with a partner suffering from genital TB or the use of sputum as a lubricant by a patient with sputum-positive pulmonary TB.⁶ In our patient, there was no history of sexual intercourse with a patient suffering from TB. Therefore, we attributed it to either haematogenous or lymphatic spread. Patients with genital TB in the post-menopausal age group may remain asymptomatic, or they may present with other constitutional symptoms of TB.

A diagnosis of TB of the cervix in suspected cases is usually not difficult. Cervical smear or biopsy may be processed for

demonstration of acid-fast bacilli, culture or granulomas. Newer molecular-based tests such GeneXpert may provide the diagnosis within a few hours. The added advantage of the latter is the availability of the status of rifampicin resistance, which helps in selecting the appropriate antitubercular drug regimen. This is especially beneficial in countries where the incidence of drug-resistant TB is high. Once diagnosed, the treatment of cervical TB is similar to any other form of TB, with a combination of isoniazid (H), rifampicin (R), ethambutol (E) and pyrazinamide (Z). Our patient was started on HREZ for 2 months and tapered to HR, and showed a good response.

This case highlights the importance of considering TB as a differential diagnosis even for lesions of the cervix. It is important to send investigations for TB along with malignancy as a cause of post-menopausal vaginal discharge in high-endemic countries.

In conclusion, TB of the cervix is a rare disease with non-specific clinical symptoms. It closely mimics carcinoma. However, once suspected and diagnosed, the outcome is good with optimal treatment. Therefore, the treating gynaecologist should be aware of this entity and the need to have a low threshold for suspicion of this disease even among post-menopausal women.

Conflicts of interest. None declared

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