

*Case Report***Tuberculous cervicitis on Pap smear: A case report**Shuchita Sharma¹, Shilpa Tomar²¹Department of Pathology, GS Medical College, Pilkhuwa, ²Department of Pathology, Saraswathi Institute of Medical Sciences, Hapur, Uttar Pradesh, India.**ABSTRACT**

Cervical tuberculosis (TB) is a rare entity with only a few case reports in the literature. It is often secondary to hematogenous or lymphatic spread from a tubercular focus elsewhere in the body. We present a case of a 35-year-old female presenting with foul-smelling vaginal discharge and lower abdominal pain. Pap smear revealed an occasional epithelioid cell granuloma and was confirmed positive for TB on culture. She had no history or contact history for TB with an unremarkable chest X-ray. The present case thus highlights the importance of a Pap smear, which is a simple and non-invasive investigation, in the diagnosis of TB in patients with primary gynecological complaints. A high index of suspicion and active screening of Pap smears is thus warranted, especially in countries where the disease burden of TB is still high.

Keywords: Granulomatous cervicitis, Pap smear, Tuberculosis

INTRODUCTION

A Pap smear is often the first line of investigation for patients presenting with gynecological complaints and cervical cancer screening. It is also useful for diagnosing infectious etiologies. While tuberculosis (TB) is rare in the Western population, it is an ever-increasing disease in developing countries. In 2021, India witnessed a 19% increase from the previous year's TB notifications.^[1] Genital TB is a less common form of TB; cervical TB is rarer still. We present a case of a 35-year-old female diagnosed with granulomatous cervicitis on a Pap smear.

CASE REPORT

A 35-year-old female given birth twice and has two living children (P2L2) presented to the gynecology outpatient department with complaints of foul-smelling vaginal discharge and lower abdominal dull aching pain. On per speculum, cervix bleed on touch and hypertrophied, uterus normal size, anteverted. Her hematological and biochemical investigations were unremarkable except for a raised erythrocyte sedimentation rate. A Pap smear was taken, which revealed predominantly intermediate squamous cells in an inflammatory background comprising neutrophils, lymphocytes, and histiocytes. Occasional epithelioid cell granuloma and foci of necrosis were seen [Figure 1]. The Ziehl–Neelsen stain for acid-fast bacilli

(AFB) was negative. However, the cervical sample for TB culture was positive.

The Mantoux test was positive at 13 mm. Chest X-ray was negative. There was no history of TB or contact history. The patient was started on anti-tubercular treatment (ATT), and her symptoms resolved subsequently.

DISCUSSION

Pulmonary TB is the most common form of TB. Genital TB is less common, with involvement of the fallopian tubes, endometrium, and ovaries being common. Cervical TB is an extremely rare form of genital TB, involved in 0.1–0.65% of all cases of TB and 5–24% of female genital tract TB.^[2] Only a few such cases are reported in the literature.^[3–7] Cervical TB more commonly occurs due to direct spread or secondary to pulmonary TB through hematogenous or lymphatic seeding. Primary cervical TB is very uncommon, introduced by a partner with genitourinary TB or when sputum is used as a lubricant.^[2]

Half of the cases of cervical TB are asymptomatic, while the other half present with menstrual irregularity, vaginal discharge, or infertility. Gross examination may be entirely normal or may show a cervix with inflammation, erythema, ulceration, or even a proliferative lesion.

A Pap smear is a non-invasive investigation and an important adjunct in diagnosing many genital infections. A Pap

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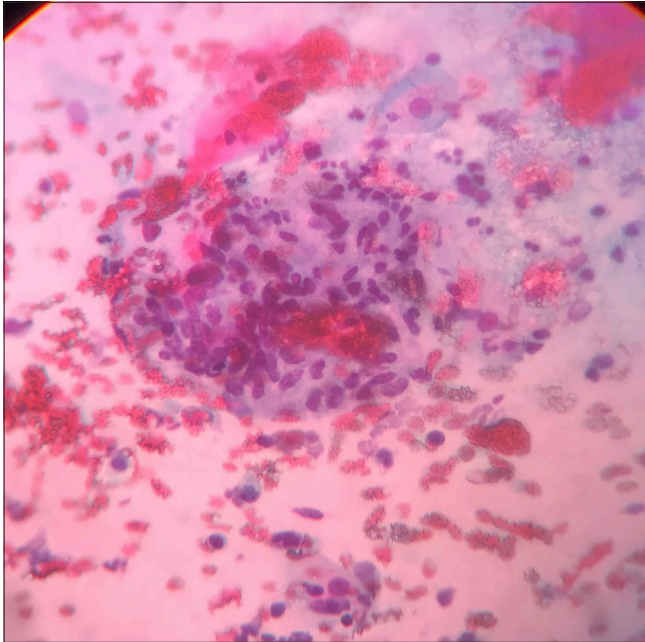


Figure 1: Pap stained smear showing epithelioid cell granuloma (MAG-40X)

smear may reveal epithelioid cell granulomas, necrosis, and Langhans giant cells in cervical TB. It is important to rule out differential diagnoses of granulomatous cervicitis, such as lymphogranuloma venereum, sarcoidosis, schistosomiasis, foreign body reaction, syphilis, granuloma inguinale, and Crohn's disease. A confirmed diagnosis of TB can be given after the Ziehl–Neelson stain or culture.^[8] However, AFB may not be positive in every case. Although the culture was positive in the present case, even culture may be negative in one-third of cases.^[8] In TB endemic countries like India, after careful clinical scrutiny and ruling out other differential diagnoses, suspicious cases of granulomatous cervicitis, ATT may still be started in the correct clinical scenario.

CONCLUSION

In patients presenting with primary gynecological complaints, Pap smears should be actively screened for findings suggestive of TB as early as possible, and prompt intervention greatly improves clinical outlook.

Ethical approval: Institutional Review Board approval is not required.

Declaration of patient consent: The authors certify that they have obtained all appropriate patient consent forms. In the form, the patients have given their consent for their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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