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Primary Vulval Tuberculosis Presenting As Multiple Vulval Ulcers: A Rare Case Report

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ABSTRACT

Primary tuberculosis (TB) of the vulva is very rare. Here we report a case of primary ulcerative vulvar TB. The diagnosis was made on the histopathological finding along with demonstration of acid-fast bacilli on tissue biopsy and managed with anti-tubercular drugs. So, tuberculosis should be suspected in cases of non-healing vulvar ulcers, particularly in developing countries.

INTRODUCTION

With effective medical management, the incidence of female genital tuberculosis (TB) is decreasing. But in developing countries like India, genitourinary tuberculosis is still a considerable problem. Female genital tuberculosis usually involves the upper genital tract such as fallopian tubes and endometrium [1], and patients usually present with infertility. The peak age of presentation is between 20 to 31 years [2]. Involvement of the vulva is very rare [3], especially the primary vulvar TB [4]. The reported incidence is 0.02 to 0.07% [6]. This is a rare case report of primary ulcerative vulvar TB in a post-menopausal woman who failed to respond to initial management with antibiotics for vulval ulcers. The diagnosis was made upon histopathological examination of the biopsy specimen along with a demonstration of acid-fast bacilli in the biopsy. The vulval ulcers completely disappeared with antitubercular therapy.

CASE REPORT

A 46-year-old post-menopausal, multiparous woman from a rural background presented with multiple small, painful, and itchy ulcers on the vulva for 9 months. She visited skin and venereal departments for these ulcers, where she received several courses of antibiotics and antifungal management, but without any response. She had no underlying diseases and no history of a rise in temperature in the evenings, night sweats, cough, or significant weight loss. On genital examination, multiple lesions were found in the vulva involving the labia majora of both sides with more prevalent and larger ulcers on the left side. Nine ulcers of varying sizes ranging from 3 mm X 3 mm to 17 mm X 9 mm were present in left labium major and 4 ulcers of smaller sizes were noticed on the right labium majora. Ulcers had an irregular border, indurated base, slight central necrosis, and were without any discharge (Figure 1). Routine laboratory investigations showed hemoglobin 9.6 gm/dl and an erythrocyte sedimentation rate (ESR) in the first hour. Venereal disease research laboratory (VDRL) and HIV tests were negative. She was normoglycemic with normal renal biochemical parameters. Her chest X-ray and abdominal ultrasonography were normal. A Mantoux test showed a reaction with 9 mm X 8 mm erythema and induration. Tissue biopsy of the ulcer was performed. The histological report confirmed a "caseating granulomatous lesion with giant Langhans cells," which are features suggestive of tuberculosis (Figure 2).

An examination of the specimen with a Ziehl Neelsen stain revealed scattered acid-fast bacilli (Figure 3). Since the 2 results positively supported our diagnosis of vulvar tuberculosis we did not perform polymerase chain reaction (PCR) tissue tests.

The sputum and urine samples for acid-fast bacilli and mycobacterium culture were negative. Her husband was also

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Figure 1. Multiple ulcers present on the labia majora bilaterally.

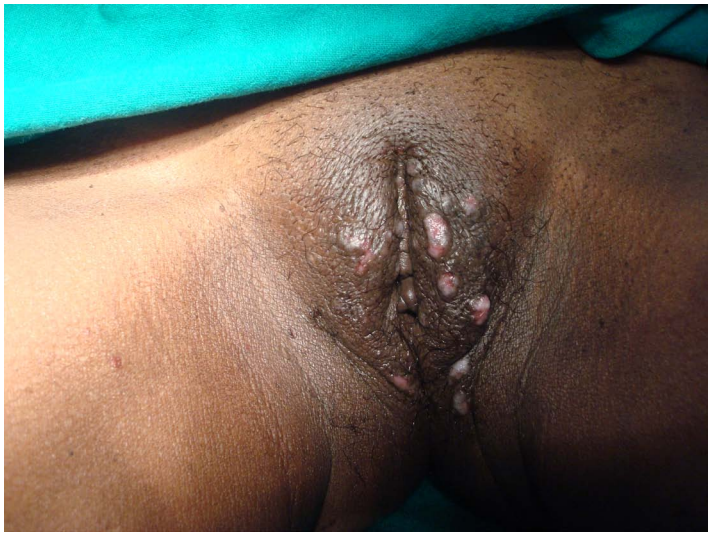


Figure 3. Examination of the specimen with a Ziehl Neelsen stain showing acid-fast bacilli.

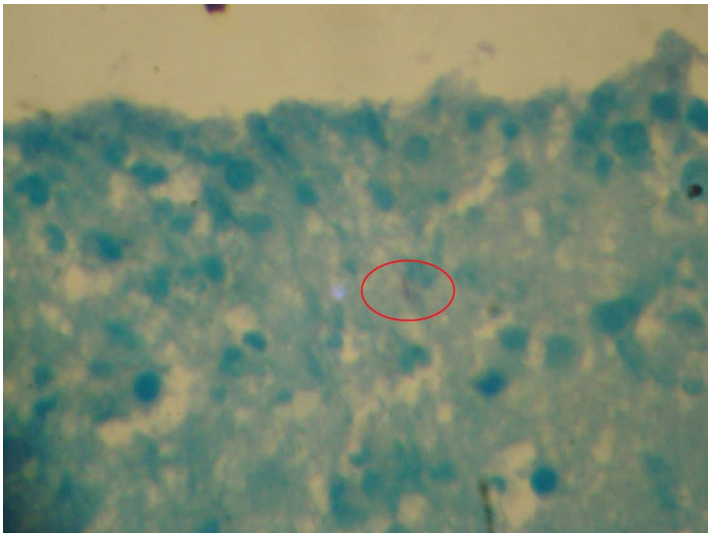
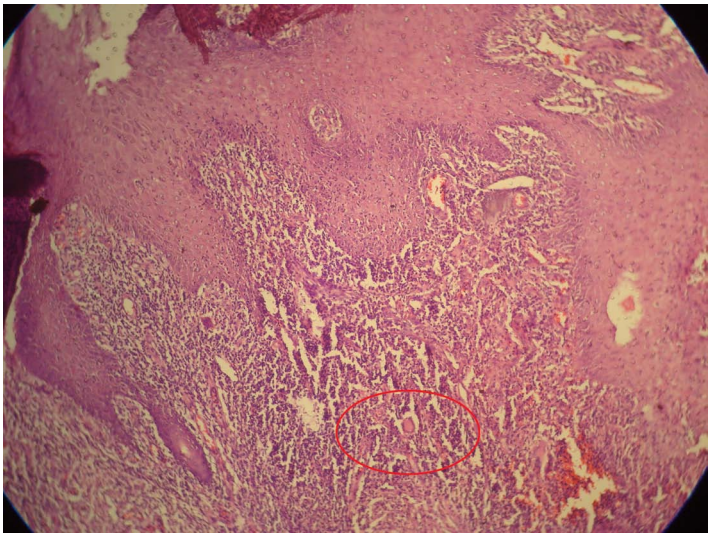


Figure 2. Histopathological examination showing caseating granulomatous lesions with giant Langhans cells.



examined and he had no evidence for tubercular lesions in the epididymis, prostate, or lung on clinical as well as on radiological examination. The Mantoux test, chest X-ray, and smear from sputum in other members of her family were unremarkable.

The patient was treated with a standard 4-drug anti-tubercular regimen (INH, rifampicin, pyrazinamide, and ethambutol) for 2 months and INH with ethambutol for another 4 months. After 2 months of therapy, the ulcer was completely healed. In the 1-year follow-up, there was no evidence of any recurrence.

DISCUSSION

Female genital TB is rare [6] and usually is secondary to other organ involvement (lung, kidney, lymph node, urinary tract, bones, joints, and bowels). Genital TB spreads by different routes. In the majority, it spreads hematogenously, in a minority as a direct extension from the lesion in the upper genital tract or exogenously from excretion of tubercle bacilli in the stool, urine, sputum, or through sexual contact [2]. The highest incidence is seen in young and childbearing women of rural backgrounds [6]. The common symptoms of female genital tuberculosis are abnormal vaginal bleeding, vaginal discharge, menstrual irregularilties, chronic pelvic pain, infertility, and constitutional symptoms [5]. Genital TB mainly affects the fallopian tube and endometrium. The rarity of a primary form of vulval tuberculosis is due to the effective barrier raised by the squamous epithelium.

Vulvar TB lesions are either ulcerative or hypertrophic in the ratio of 10:1 [7]. Three types of ulcerations are found: lupus, scrofulodermal, and a third type presenting as a nodule that breaks down to form a painful, tender ulcer with undermined edges, a granulating base with dirty yellow exudate. This case was of the last variety. There are case reports of primary tuberculosis of the vulva in which the female had been infected as a result of coitus with a male suffering from tuberculous

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epididymo-orchitis [7]. Suppuration and ulceration of inguinal lymph nodes sometimes occurs and a biopsy is the only diagnostic modality to detect such cases. Microscopy of the vulval ulcers often reveals typical tubercles, but the bacilli are very rarely identified. In this case we were able to identify acid-fast bacilli in the biopsy specimen (Figure 2), which is unique in this case. Most of the cases of tubercular vulval ulcers respond well with medical management, as was seen in this case. Sometimes cosmetic aesthetic surgery may be required [5].

CONCLUSION

TB is still very common in developing countries and should always be suspected in cases of chronic non-healing vulvar ulcers, especially when they fail to respond to initial empirical management.

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