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Beyond the Usual Sites: Primary Vulvar Tuberculosis in a Perimenopausal Patient (Case Report)

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Abstract: ***Background:*** *Extrapulmonary tuberculosis (EPTB) is a significant yet often underrecognized manifestation of tuberculosis. Vulvar tuberculosis is an extremely rare form of EPTB, presenting diagnostic challenges due to its nonspecific symptoms, which can mimic other conditions such as chronic dermatologic or neoplastic disorders or sexually transmitted infections.* ***Presentation:*** *A 46-year-old perimenopausal woman with type II diabetes mellitus presented with a one-month history of firm, non-tender nodular lesions on her vulva and posterior vaginal wall. She had no systemic symptoms such as fever, weight loss, or night sweats, and no history of tuberculosis exposure.* ***Management:*** *Histopathological analysis of the vulvar lesion biopsy revealed granulomatous inflammation with caseating necrosis and the presence of acid-fast bacilli, confirming the diagnosis of vulvar tuberculosis. The patient was promptly started on standard anti-tubercular therapy, leading to improvement.* ***Conclusion:*** *This case highlights the rarity of primary vulvar tuberculosis and the diagnostic difficulty posed by atypical presentations. It underscores the importance of considering tuberculosis in the differential diagnosis of chronic vulvar lesions, particularly in immunocompromised patients like those with diabetes. Early diagnosis and treatment are crucial for preventing complications and disease transmission.*

Keywords: Vulvar tuberculosis, extrapulmonary tuberculosis, genital tuberculosis, nodular lesions, histopathology.

1. INTRODUCTION

Tuberculosis (TB) remains a global public health issue, with an estimated 10.6 million cases in 2022. While pulmonary TB is the most common form, extrapulmonary tuberculosis (EPTB) is significant, especially among immunocompromised individuals.

Genital tract tuberculosis is a relatively rare form of EPTB, comprising about 9% of extrapulmonary cases.

It most commonly affects the fallopian tubes, endometrium, and ovaries. [1]

Vulvar involvement is extremely rare, accounting for less than 1% of genital TB cases.

The clinical presentation is often non-specific and can mimic sexually transmitted infections, neoplastic diseases, or chronic dermatologic conditions, making diagnosis particularly challenging. [1]

2. CLINICAL CASE

A 46-year-old woman, multiparous, in the perimenopausal stage, her medical history was significant for type II diabetes mellitus, which was managed with oral hypoglycemic agents.

She presented to our department with a one-month history of verrucous, papular, and nodular lesions in the vulvar and pubic regions, as well as the perianal area.

The patient had been referred from a primary health center for further specialized evaluation.

She described the lesions as progressively enlarging over time, occasionally associated with mild discomfort, but reported no discharge, ulceration, fever, weight loss, or night sweats.

There was no history of tuberculosis exposure, immunosuppressive conditions, recent travel, or high-risk sexual behavior.

Her family history was non-contributory, and she had not experienced any systemic symptoms.

2.1 Clinical examination:

Upon admission, the patient was conscious and in good general condition, with stable hemodynamic and respiratory parameters. No systemic signs of infection were noted.

Dermatological examination of the vulva revealed multiple nodular lesions distributed over the pubic region, clitoral hood, and labia majora. (Fig. 1)

The nodules were firm, non-tender, and non-ulcerated, with the largest measuring approximately 3 cm in diameter (nodular forme) (Fig. 2).

Gynecologic examination via speculum showed peri-orificial erythema (Fig. 3) but no visible cervical or vaginal ulcerations. However, a few nodular lesions were palpated on the posterior vaginal wall during bimanual examination. The cervix was of normal consistency with no detectable masses. No bleeding was observed.

Examination of the lymphatic regions, including inguinal, axillary, and cervical nodes, revealed no lymphadenopathy.

Abdominal examination was unremarkable, with no evidence of hepatosplenomegaly, palpable masses, or signs of ascites.

Pulmonary auscultation and systemic examination were within normal limits.

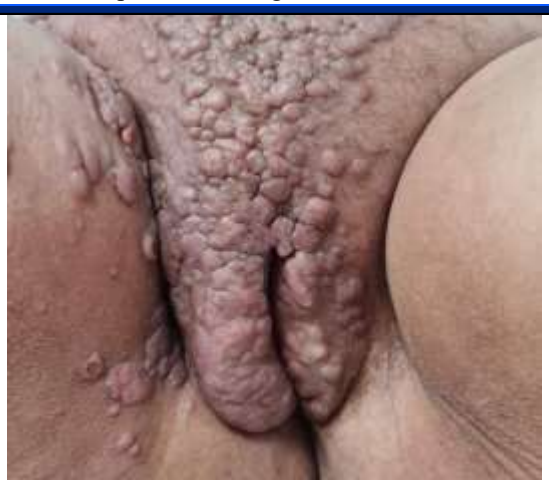

Fig1: Image showing the verrucous, nodular, and papular lesions of the perineal region.

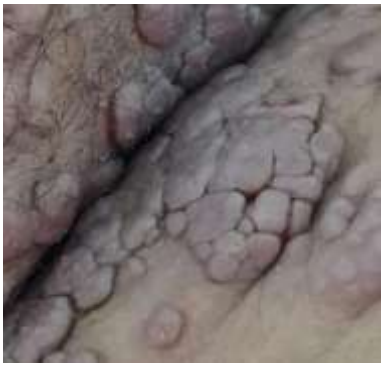

Fig2: Image showing a nodular form of perineal lesions..

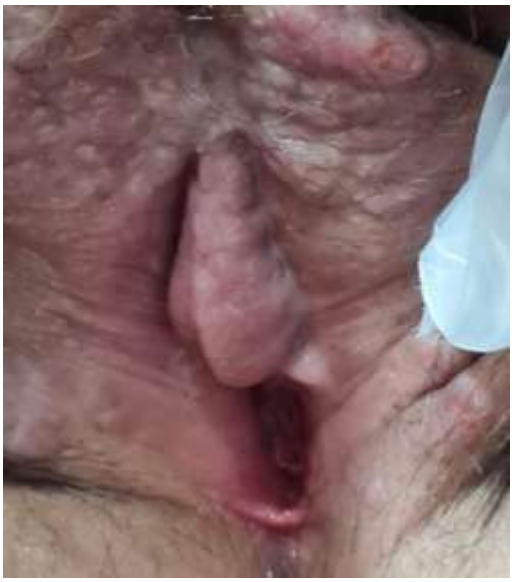

Fig3: Image showing vulvar erythema and clitoral lesions.

2.2 Investigations:

A biopsy of the vulvar lesions was performed under local anesthesia.

Histopathological examination showed granulomatous inflammation with caseating necrosis and the presence of Langhans giant cells, findings consistent with tuberculosis.

Ziehl-Neelsen staining for acid-fast bacilli was positive in the tissue sample.

Chest radiography and abdominal ultrasound did not reveal any primary pulmonary or abdominal tuberculosis focus.

The HIV test was negative.

Given these findings, the diagnosis of **primary vulvar tuberculosis** was established.

2.3 Treatment and follow up:

Following the diagnosis, the patient was referred to a specialized tuberculosis treatment center for further management.

She started the standard anti-tubercular therapy (ATT), which included isoniazid, rifampin, pyrazinamide, and ethambutol for the intensive phase.

After completing the initial phase, the patient was transitioned to the continuation phase, which consisted of isoniazid and rifampin, in accordance with national tuberculosis treatment guidelines.

The patient was closely monitored for clinical improvement and potential side effects of the medication, with follow-up

appointments scheduled to ensure ongoing efficacy of treatment and assess for any complications.

3. DISCUSSION

Tuberculosis of the female genital tract is most commonly secondary to a focus elsewhere in the body, typically the lungs. [1,2]

Hematogenous or lymphatic spread is the usual route of transmission.

However, in rare cases, particularly with isolated vulvar or vaginal lesions, the exact pathogenesis remains unclear.

Primary inoculation through microabrasions during sexual activity or contaminated hands has been hypothesized but remains unproven. [2]

Vulvar tuberculosis is rare even in TB-endemic regions.

It usually presents as a chronic, non-healing ulcer or as hypertrophic or verrucous lesions, often mistaken for malignancy, lichen planus, condyloma, or syphilitic chancre.

The nodular form, as seen in our case, is even less commonly reported and is usually non-ulcerated and slow-growing. [3]

Our patient's risk factors, particularly diabetes mellitus, likely contributed to altered immune response and increased susceptibility to atypical infections such as cutaneous and vulvar TB.

Diabetes has been associated with increased reactivation of latent tuberculosis and delayed clearance of mycobacteria. [3,4]

The absence of systemic symptoms, normal chest imaging, and lack of lymphadenopathy made the diagnosis more challenging.

This case underscores the importance of considering tuberculosis in the differential diagnosis of persistent vulvar or vaginal lesions, particularly in immunocompromised patients. [4]

Histopathology remains the cornerstone of diagnosis in such cases, with the demonstration of caseating granulomas and acid-fast bacilli.

PCR-based tests and cultures can aid in confirmation, but are not always available in resource-limited settings. [4]

5. CONCLUSION

This case highlights the diagnostic challenges posed by atypical presentations of TB and the crucial role of histopathology in establishing the diagnosis.

In regions with high TB prevalence, clinicians must maintain a high index of suspicion for tuberculosis in patients presenting with chronic or unusual vulvar lesions, especially when risk factors such as diabetes or immune compromise are present.

Early diagnosis and initiation of anti-tubercular therapy are essential to prevent complications, reduce morbidity, and interrupt potential transmission pathways.

6. REFERENCES

[1] Singh, V., Singh, G., Sinha, R. J., & Babu, S. (2020).
Vulvar tuberculosis. BMJ Case Reports, 13(2), e232880.

[2] Maiti, K., Mishra, S., Bera, M., Pal, D., Maiti, M., & Mondal, P. P. (2013).
Primary vulval tuberculosis presenting as multiple vulval ulcers: A rare case report. UroToday International Journal, 6(3), art 39.

[3] Bahadur, S., Rathore, R., Verma, U., & Nargotra, N. (2018).
Genital tuberculosis: Coexisting vulval and endometrial tuberculosis in a multiparous female. Journal of Clinical and Diagnostic Research, 12(2), 9-10.

[4] Yu, J., Huang, W., Zhang, G., & Xiao, R. (2022).
Vulvar ulcerative cutaneous tuberculosis secondary to genital tract tuberculosis. Anales Brasileiros de Dermatologia, 97(6), 786–788.