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UNVEILING THE UNCOMMON: PERIANAL WARTY PRESENTATION OF TUBERCULOSIS VERRUCOSA CUTIS

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Abstract

Tuberculosis Verrucosa Cutis (TVBC) is a wart-like form of tuberculosis that develops in individuals with pre-existing immunity to Mycobacterium tuberculosis. This report details an unusual presentation of TVBC, mimicking perianal warts, in an otherwise healthy patient. The complexity of diagnosis due to the atypical location is highlighted. Standard investigations, including radiologic imaging, Mantoux test, and skin biopsy, confirmed the diagnosis. This case report emphasizes the unique cutaneous presentation of tuberculosis and the importance of considering TVBC for unusual verrucous lesions.

Keywords: Perianal Wart , TBVC Tuberculosis Verrucosa Cutis, Warty Tuberculosis.

BACKGROUND

TVBC, a subtype of cutaneous tuberculosis, arises from external inoculation of tubercle bacilli in a previously sensitized person. On average, it usually presents itself as defined warts on the arms, regions of the leg such as knee, ankles, and in the gluteal region. There have been rare occurrences of atypical presentations of TBVC. The perianal region is an uncommon site for TVBC, adding another layer of diagnostic challenge. Reporting such cases is crucial to expanding our understanding of this unusual manifestation and guiding informed clinical decisions for perianal involvement.

CASE HISTORY

60 year-old farmer presented with a one-month history of diffuse, warty skin lesions on the left gluteal region extending to the thigh. Four months prior, he experienced a thorn prick injury in the same area. Initially itchy, a solitary warty lesion developed, progressing to intense itching and oozing in recent weeks. He denied having any previous history of the illness or any of its associated symptoms. He was a non-smoker and non-alcoholic with no family history of tuberculosis. Examination revealed diffuse, verrucous, hyperkeratotic plaques with pus points on the left gluteal region extending to the thigh. The lesion had an ill-defined border and no signs of scarring or healing. A thorough examination revealed no other skin elsewhere, mucosal, or nail lesions. He appeared well-nourished without systemic abnormalities. The patient was afebrile and exhibited no lymphadenopathy, or chest radiographic signs suggestive of current infection. Routine blood tests revealed mild anaemia (haemoglobin 11 g/dL) and elevated white blood cell count (11,200/mm3) with a neutrophil predominance. The erythrocyte sedimentation rate was suggestive of inflammation (44 mm/hr).Chest X-ray showed no signs of past or recent tuberculosis or other abnormalities. The Mantoux test measured 20 mm after 48 hours. Based on these findings, a provisional

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diagnosis of TVBC was made, and a punch biopsy was performed from the gluteal region. Histopathological examination confirmed TVBC, showing prominent pseudo-epitheliomatous hyperplasia with widespread tuberculoid granulomatous inflammation in the dermis. Standard anti-tuberculosis treatment for six months was initiated alongside topical antibiotic ointments. The patient was followed up on routine visits every fortnight and revealed improvement in the lesions after three weeks.

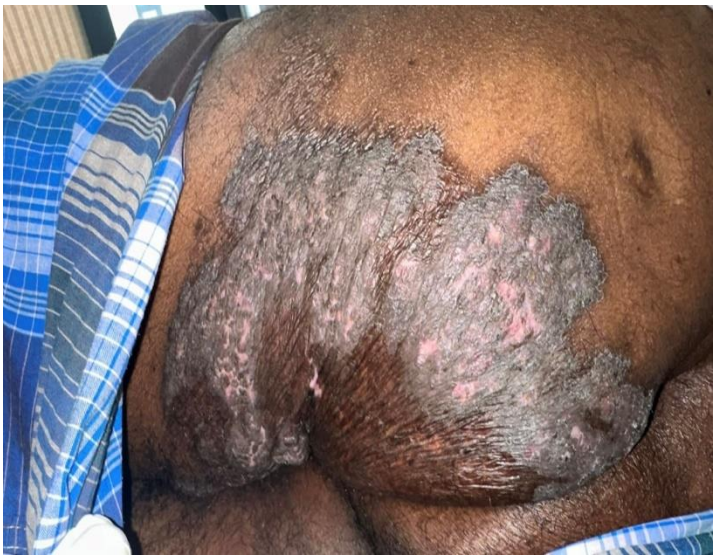

Figure 1: A Verrucous hyperkeratotic plaques in the left gluteal region extending to the posteromedial aspect of the thigh with pus points

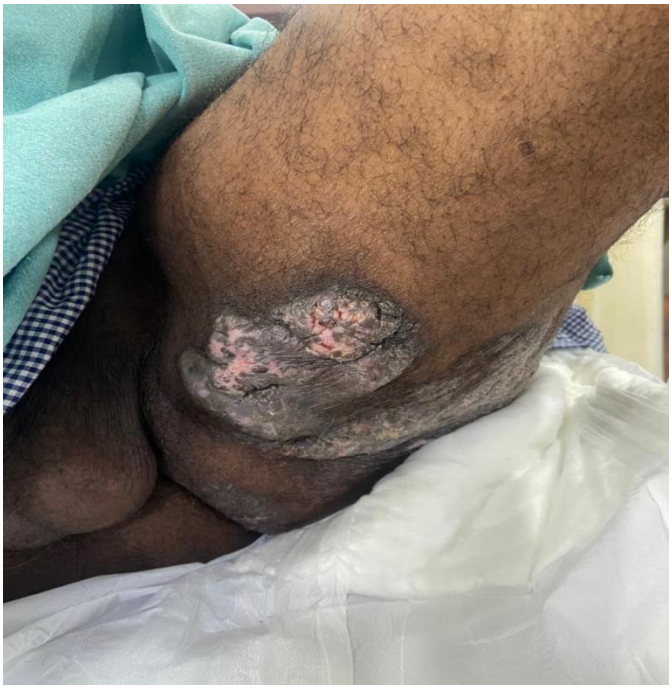

Figure 2: Hyperpigmented plaques with few areas of hypopigmentation in the left gluteal region extending to the posteromedial aspect of the thigh

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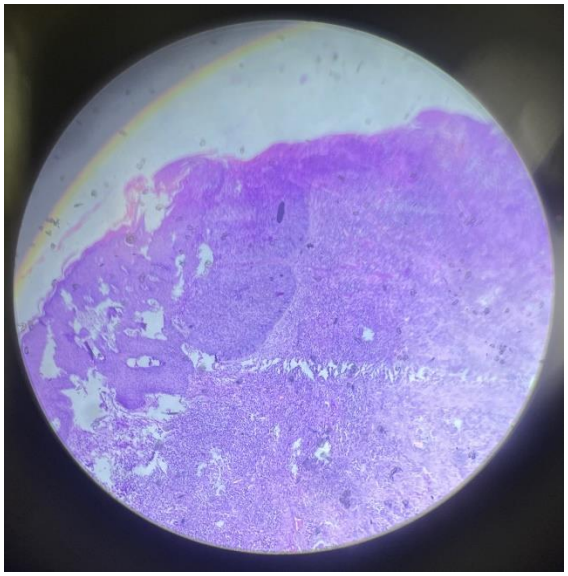

Figure 3: Pseudo-epitheliomatous hyperplasia with diffuse tuberculoid granulomatous inflammation in dermis.

DISCUSSION

Cutaneous tuberculosis is a rare and diverse presentation of TB. It is estimated to affect 0.1% of patients visiting dermatology clinics and accounts for 1-2% of all extrapulmonary tuberculosis cases globally. Scrofuloderma (50%) is the most common form in India, followed by lupus vulgaris (42.86%), Tuberculosis verrucosa cutis (4.76%), and lichen scrofulosorum (2.38).[1] This case highlights the rarity of perianal involvement in TVBC.[2,3] Mycobacterium tuberculosis typically infects the lungs but can also affect extrapulmonary organs, including the skin. Cutaneous tuberculosis is categorized into four types: inoculation, endogenous, hematogenous, and tuberculids. TVBC is a rare subtype that often develops on the extremities like the dorsa of the fingers, hands, ankles, and rarely, the perianal area. It arises from external infection in previously sensitized individuals. Clinically, TVBC presents non-specifically, often starting as a small papule that evolves into a hyperkeratotic, verrucous plaque with irregular borders.[4,5] However, it can often present similar to other cutaneous lesions. In our case, the perianal lesions manifested primarily as multiple verrucous, hyperkeratotic plaques with pus points. Histologically, TVBC typically demonstrates hyperkeratosis, pseudo- epitheliomatous hyperplasia of the epidermis, and suppurative and granulomatous inflammation in the upper and mid-dermis. Bacterial culture and PCR-based DNA sequencing are considered the gold standard for definitive organism identification.[6]

CONCLUSION

Tuberculosis verrucosa cutis remains a public health concern in developing countries due to its varied clinical, histopathological, immunological presentations, and treatment responses. Differential diagnosis of TVBC should be considered for any verrucous lesions, regardless of location. While PCR is expensive, it can expedite diagnosis thereby avoiding misdiagnosis of cutaneous tuberculosis

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