

Beaded Lips – An Atypical Presentation of Lupus Vulgaris

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Abstract

Lupus vulgaris is the most common form of cutaneous tuberculosis in tropical countries. It can occur as a result of direct inoculation, lymphatic spread, contiguous spread from underlying focus or rarely hematogenously from infective focus. It has diverse clinical presentations. The authors present an atypical presentation of lupus vulgaris involving the lip and discuss about the differential diagnosis of persistent swelling of lips.

Key words – Cutaneous tuberculosis, Lupus vulgaris, Persistent lip swelling

Case report

A 41-year-old Indian woman presented with infiltrated swelling of the lower lip and multiple small erythematous beaded papules over the lower vermilion border for 6 months (Figure 1). The patient was asymptomatic except for mild burning sensation of the lower lip. On palpation, the lesions were non-tender and soft-to-firm in consistency. Her past and family medical history was not remarkable. There was no history of injections in lips. The tuberculin test was strongly positive with a reading of 22mm * 20 mm induration at 48 hours (Figure 2).

The tissue smear revealed a few acid fast bacillus (AFB) (Figure 3). The histopathological examination revealed multiple well-formed epithelioid granulomas containing Langhans giant cells surrounded by dense lymphocytic infiltrates, in the dermis (Figure 4). Her chest radiograph and computerized tomography (CT) scan of chest was normal, and sputum examination for AFB was negative. The AFB culture of the tissue specimen was negative. Based on the clinical features and investigations, a diagnosis of lupus vulgaris was made, and the patient was started on antituberculous

therapy (rifampicin, isoniazid, pyrazinamide and ethambutol).

Discussion

Lupus vulgaris is a chronic progressive paucibacillary form of cutaneous tuberculosis affecting previously sensitized individuals. The infection can occur endogenously via lymphohematogenous route or exogenously via trauma.¹ The common morphological presentations of lupus vulgaris include plaque, nodular, ulcerative, tumid and vegetating forms. Unusual variants include ulcero-vegetating, framboesiform, lichen simplex chronicus type, gangrenous and sporotrichoid types.²

Tuberculosis of lips is relatively rare due to saliva, thick protective epithelial covering, resistance of striated muscle and the presence of saprophytes.³ The differential diagnosis of persistent acquired swelling of the lip includes infections like cutaneous tuberculosis, Hansen disease, syphilis, leishmaniasis, rhinoscleroma, histoplasmosis, and post-odontogenic infections. The non-infectious differential diagnosis includes cheilitis granulomatosa, Melkersson– Rosenthal syndrome, sarcoidosis, Crohn's disease, amyloidosis, foreign body reaction, hypothyroidism, elephantiasis nostras, liver and renal failure, acromegaly, and several benign and malignant tumours of the salivary glands.^{4,5}

Lupus vulgaris when left untreated have complications such as fibrosis, mutilation, joint contractures and severe disfigurement.⁶ The tuberculin skin testing is usually positive. Biopsy for histopathology, tissue smear, Acid fast bacillus culture and Polymerase chain reaction to identify the *Mycobacterium tuberculosis* genome aids in the diagnosis. It is necessary to screen the patient for any systemic involvement. Antituberculous treatment for six months causes resolution of lesions.^{7,8}

Conclusion

Infiltrated swelling of the lower lip and beaded papules along vermilion border is an atypical presentation of lupus vulgaris. A high index of suspicion for lupus vulgaris is needed in any atypical orofacial lesions in high endemic areas.

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Legends

Figure 1a - Diffuse infiltration of lower lip, Figure 1b - Few discrete beaded papules over vermilion border of lower lips

Figure 2 - Strongly positive tuberculin skin test

Figure 3 – Tissue smear revealed few Acid fast bacillus

Figure 4a - H&E - 10x view shows Skin with superficial dermis showing granuloma, Figure 4b - H&E - 40x shows Dermis with granuloma surrounded by lymphocytes and few giant cells

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