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CASE REPORT : LUPUS VULGARIS OF THE EXTREMITY IN A 43 YEAR OLD FEMALE

Pathology

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ABSTRACT

Lupus vulgaris is the most common form of cutaneous tuberculosis , usually presenting as a slowly progressive , plaque type lesion on face or extremities. This report highlights a chronic case of lupus vulgaris localized to the forearm in a middle aged woman with a positive tuberculin test and classical histopathological findings. Early diagnosis and anti-tubercular therapy led to significant improvement.

KEYWORDS

Lupus vulgaris, Extremities, Tuberculin test, Granuloma

INTRODUCTION

Lupus vulgaris is a chronic, paucibacillary form of cutaneous tuberculosis and is caused by mycobacterium tuberculosis that typically presents in individuals with moderate immunity. It commonly affects the face and extremities(1,2), with clinical features ranging from plaques to nodules and ulcers. LV is characterized by plaque with apple jelly nodule that extends irregularly with scar formation and tissue destruction.(3) Diagnosis is often delayed due to its indolent nature, and histopathological confirmation remains the gold standard. This case underscores the importance of clinico-pathological correlation in diagnosing LV.

Case Report

A 52-year-old female, farmer by occupation, presented with one-year history of a raised lesion on left forearm which started with papules which coalesced into present size. Examination revealed a single, well defined, nontender skin colored to brownish indurated plaque with central atrophy and raised periphery with irregular margin of size 4×5 cm with minimal scales over right forearm (Figure 1). No follicular plugging, scarring, adherent scales, telengectasia or loss of sensation were noted. No regional lymphadenopathy was present. Diascopy revealed apple jelly color at the periphery. Systemic examination was uneventful. Routine haematological and biochemical investigations revealed ESR mildly levated and complete blood count within normal limit, liver function test and kidney function test within normal limit. Tuberculin skin test was strongly positive with 20 mm diameter after 48 hours and chest X ray was within normal limt. Histopathology of lesion showed orthokeratotic epidermis with mild acanthosis and dermis with well formed epitheloid granuloma with Langhan's giant cell and stroma showing lymphoplasmacytic cell infiltrates (Figure 2). These features were suggestive of a chronic granulomatous inflammatory reaction. No typical tuberculous follicles or acid-fast bacilli could be identified. Culture was negative for fungi, bacteria and acid-fast bacilli. The clinical and microscopic features were consistent with diagnosis of LV. The screening for an extracutaneous focus of TB was negative. Patient was treated with a 2-month course of isoniazide 5 mg/kg/d, rifampicin 10 mg/kg/d, pyrazinamide 35 mg/kg/d, and ethambutol 20 mg/d followed by rifampicin and isoniazid for a further 4 months. Complete resolution of the plaque with minimal residual scarring was observed in follow-up examination at the end of the treatment .

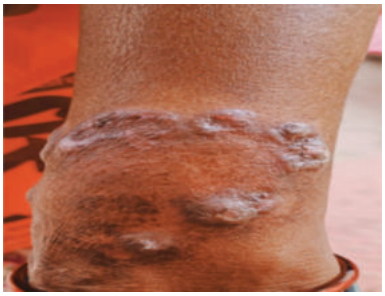

Figure 1. Single Well Demarcated, Indurated Plaque with Nodular Surface Over the Left Distal Forearm, Measuring 5x5cm, Reddish Brown in Colour.

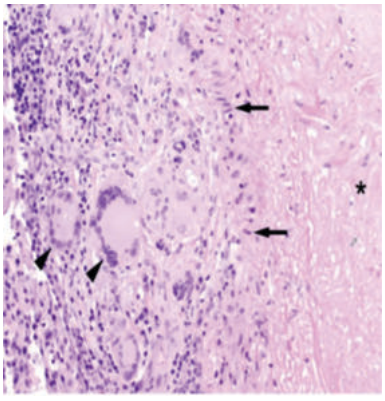

Figure 2: Granulomatous Inflammation and Langhans Type of Giant Cells and Stroma Showing Lymphoplasmacytic Infiltrates.

DISCUSSION

LV is a rare, chronic, progressive form of tuberculosis caused by continuous spread from an underlying focus of infection or by hematogenous or lymphatic spread.(4,5) LV typically is characterized by red-brown papules, which coalesce to form a well-demarcated scaly, asymptomatic plaque.

Morphological patterns observed are plaque type, ulcerative type, vegetative type, papular-nodular type and tumor-like. Higher tendency for scarring and deep tissue involvement is seen in ulcerative and mutilating forms of LV.(3) Commonly involve face, ear and neck. Facial involvement can affect the nose resulting in destruction of nasal and septal cartilage.

The differential diagnosis for early plaque type should include lupus erythematosus, lymphocytoma, Spitz naevus, syphilis, psoriasis and Bowen's disease and for multinodular or vegetative type include leishmaniasis, leprosy, sarcoidosis, acne rosacea and Wegener's granulomatosus.(3,6)

A positive culture for bacilli and may fail to demonstrate acid-fast bacilli in patients with chronic and long standing lesion as they possess higher degree of immunity against the infection.(11-14) In the present case also culture was negative and could not demonstrate acid fast bacilli in the biopsy specimen(7-10)

The Mantoux test is positive in most cases of LV as in our case(7,10)

CONCLUSION

Early diagnosis and initiation of ATT in cutaneous TB such as lupus vulgaris can prevent scarring , functional loss, and secondary complications. LV should be considered as differentials in various diseases presenting with chronic non-healing plaque. Confirmation of

diagnosis poses an enormous challenges due to its variable clinical presentation and paucibacillary nature. This case emphasizes the importance of including TB in the differential diagnosis of chronic , non healing skin lesions in endemic areas.

REFERENCES

1. Theodosiou G, Papageorgiou M, Mandekou-Lefaki I. An unusual presentation of lupus vulgaris and the practical usefulness of dermatoscopy. Case Rep Dermatol Med. 2018;2018:1036162.
2. El-Gatit AL, Deriny EL, Mahmoud AA, Ashi AS. Presumed periorbital lupus vulgaris with ocular extension. Ophthalmology. 1999;106(10):1990-3
3. Gawkrodger DJ. Mycobacterial infections. In: Rook A, Wilkinson DS, Ebling FJG, eds. Textbook of Dermatology. 6th ed. Oxford; Boston: Blackwell Scientific; 1998: 1194
4. James W, Berger T, Elston D. Mycobacterial Diseases from Andrew's diseases of the skin. 11th ed. Elsevier; 2011.
5. Tappeiner G. Tuberculosis, from Dermatology in General Medicine. 7th ed. McGraw-Hill; 2008.
6. Freitag DS, Chin R. Facial granuloma with nasal destruction. Chest. 1998;92(3):422-3.
7. Marcoval J, Servitje O, Moreno A, Jucglà A, Peyrí J. Lupus vulgaris. Clinical, histopathologic, and bacteriologic study of 10 cases. J Am Acad Dermatol. 1992;26:404-7.
8. Farina MC, Gegundez MI, Pique E, Esteban J, Martín L, Requena L, et al. Cutaneous tuberculosis. Clinical, histopathologic, and bacteriologic study of 10 cases. J Am Acad Dermatol. 1995;33(3):433-40.
9. Serfling U, Penneys NS, Leonardi CL. Identification of Mycobacterium tuberculosis DNA in case of lupus vulgaris. J Am Acad Dermatol. 1993;28:318- 22.
10. Sehgal VN, Jain MK Srivastava G. Changing pattern of cutaneous tuberculosis-a prospective study. Int J Dermatol. 1989;28(4):231-6.