Original Research Paper

Volume - 11 | Issue - 05 | May - 2021 | PRINT ISSN No. 2249 - 555X | DOI : 10.36106/ijar

ENT

LUPUS VULGARIS OF PINNA: A RARE CASE

Dr. Avinash Kumar	M.S. Assistant Professor, Dept. of E.N.T. Noida International Institute of Medical Sciences (NIIMS) Greater Noida, U.P.
Dr. Manjari Kishore*	M.D., D.N.B. Assistant Professor, Dept. of Pathology Noida International Institute of Medical Sciences (NIIMS) Greater Noida, U.P. *Corresponding Author
Dr. Garima Sinha	M.D. Senior Resident, Dept. of Anaesthesia, Institute of Medical Sciences, B.H.U. Varanasi, U.P.
Dr. S.K. Varma	M.S. Head of the Dept. ENT Madan Mohan Malviya Hospital, Malviya Nagar, New Delhi.

ABSTRACT Lupus vulgaris is a cutaneous form of tuberculosis that occurs in previously sensitized individuals with a strong positive delayed type of hypersensitivity to tuberculin. Classical lupus lesions are seen in head and neck region and isolated involvement of pinna is rare and therefore high index of suspicion is required for its diagnosis.

We present a 39-year-old male with non-healing ulcer of pinna since a year. The diagnosis of lupus vulgaris was confirmed on histopathological evaluation along with positivity for acid fast bacilli. The patient showed well response to standard 4 drug regimen of antitubercular therapy.

KEYWORDS : Pinna, lupus vulgaris, acid fast bacilli, granuloma, antitubercular therapy

INTRODUCTION:

Lupus vulgaris is a chronic and progressive form of secondary cutaneous tuberculosis. In India it is mostly seen over buttocks, thigh and legs and also over head and neck. Involvement of ear is rare and therefore a proper clinical and histopathological evaluation is needed to confirm its diagnosis.

In our case the patient presented with non-healing ulcer of ear lobe, refractory to systemic and topical antibiotics. Eventually the diagnosis was confirmed by histopathological evaluation as Lupus vulgaris. The patient was started on ATT and complete resolution of symptoms was seen after 6 months.

CASE REPORT:

A-39-year-old man presented with an asymptomatic, solitary, erythematous, indurated plaque with overlying crusting on superior aspect of left ear helix [Figure 1[. It was gradually progressive for last 1 year. No history of ear pricking, or trauma was noted. No other lesions were seen in the body. No history of any systemic illness in the past was elicited.

On examination, red brown indurated plaque was seen on the left ear lobe which was involving the helical margins of the pinna. There were ulcers and crusting and on removal of crusts, bleeding was present. Rest of the pinna was normal. Tympanic membrane visualized was normal. The other ear was examined to be normal. No other lesions elsewhere in the body was seen.

Routine hematological and biochemical investigations were normal. Chest X ray was within normal limits. And no cervical lymphadenopathy was present. Purified protein derivative (PPD) showed an induration of 20x20 mm.

Skin biopsy from the plaque lesion was done which showed mild acanthosis. The underlying dermis shows epithelioid cell granulomas surrounded by a thick cup of lymphocytes and plasma cells [Figure 2A-B]. Occasional granuloma with caseation necrosis was also seen in subcutaneous tissues which was consistent with Lupus vulgaris. Acid fast bacilli were demonstrated on Ziehl-Neelsen stain [Figure 2B, inset] and PCR was positive for mycobacterial DNA.

The patient was administered conventional Antitubercular therapy of Rifampin, Isoniazid, Pyrazinamide and Ethambutol for 6 months. The lesion completely subsided after completion of Antitubercular therapy.

DISCUSSION:

Cutaneous tuberculosis occurs rarely despite high and increasing prevalence of tuberculosis worldwide.[1-3] The development of resistance to ATT drugs and increase in diseases and conditions associated with immunodeficiency such as AIDS and chemotherapy have caused TB to increase recently.

Lupus vulgaris is the most common morphological variant of cutaneous TB with an average prevalence of 0.37% among the general skin patients.[3-5] It is usually reinfection tuberculosis of the skin which originates from TB focus in the body spreading by hematogenous, lymphatic or contagious way. LV is more common in females than in males.[4-6] All age groups are equally affected. Buttocks, trunk, head and neck are common sites of involvement and hence TB is not generally included in differential diagnosis of cutaneous lesions in pinna and because of its rarity in pinna index of suspicion is low. Chhangte and Gogia et al reported similar cases of LV in ear lobule.

The characteristic lesion is a plaque or papule seen mostly in head and neck region, extending irregularly in some areas while in others scarring occurs causing considerable tissue destruction over many years. Deep seated lesions display a yellowish brown or “apple-jelly” coloration on Diascopic examination.

Lupus vulgaris can have different morphological presentations: In Plaque form, lesions have irregular edges and may have areas of scarring. This is the most common presentation with most having solitary plaque lesions. In ulcerative and mutilating forms, scarring and ulceration predominates with crusts over areas of necrosis. In papular and Nodular forms, multiple lesions occur simultaneously.[4-7] Vegetative forms are characterized by marked infiltration, ulceration and necrosis. Mucous membranes are invaded, and cartilage is slowly destroyed leading to extensive destruction and disfigurement.

Diagnosis of Lupus vulgaris can be established according to a combination of clinical, histological and bacteriological criteria.[6-7] Concomitant diagnosis by both culture and detection of mycobacterial DNA using PCR has been reported. Other modalities include ELISA for anti TB IgM.

Histopathologically, TB granulomas with scanty or absent central caseation surrounded by epithelioid histiocytes and multinucleate giant cells are present in superficial dermis with prominent peripheral lymphocytes. LV is often confused with various cutaneous disorders such as Lupus pernio, leprosy, cutaneous lymphoma, lupoid leishmaniasis and deep-seated mycosis.

The diagnosis of lupus vulgaris is difficult as the disease presents in varied forms with considerable morphological variability. Histopathology plays an important role in the diagnosis of the disease. Few other diagnostics modalties which aids in the diagnosis are culture of the tissue, ELISA for antitubercular-IgM, and polymerase chain reaction for DNA identification of *Mycobacterium tuberculosis*.[4-7]

Hence, a detailed clinical and pathological evaluation help in eliminating these differential diagnoses. Standard 4 drug ATT comprising of Rifamin, Isoniazid, Pyrizanimide and Ethambutol is given for 6 months in confirmed cases.

CONCLUSION:

Lupus vulgaris is most common among middle-aged patients commonly presenting as plaque type with frequent involvement of extremities. Lupus vulgaris of pinna is an unusual presentation and hence not normally considered as a probable diagnosis.

Diagnosis is based on clinical features and histopathological examination, granulomas with or without caseation necrosis are reported with acanthosis and keratosis. Stain for AFB and culture are also done to establish diagnosis. All patients should be given standard 4 drug regimen of ATT.

Figures with Legends:

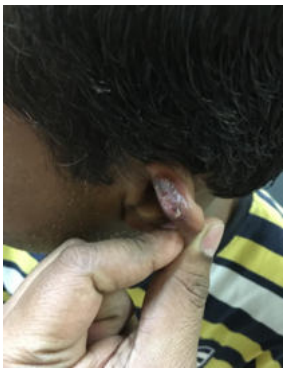

Figure 1: Clinical Image Showing An Ulcerated Lesion Over Left Pinna

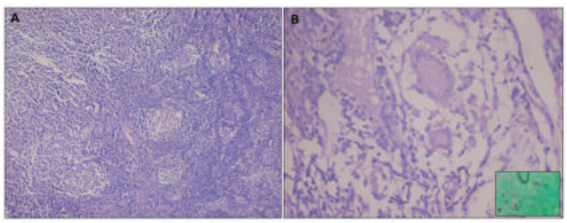

Figure 2 A-B: Sections showing multiple epithelioid granuloma in the dermis (A, H&E, 20X) with multinucleated, Langhan's type of giant cells (B, H&E- 40X); Inset showing positivity for AFB [ZN stain]

REFERENCES:

1. Nair PA, Mehta MJ, Patel BB. Ulcerative lupus vulgaris over nose, leading to cosmetic deformity. Indian J Dermatol 2015;60:104.
2. Campanelli CD, Santoro AF, Webster CG, Lee JB. Symmetrically distributed orange eruption on the ears: A case of lupus vulgaris. Cutis 2001;67:311-4.
3. Gunawan H, Achdiat PA, Hindritiani R, Essary ED, Ningtias LD, Siregar EP, *et al*. Various cutaneous tuberculosis with rare clinical manifestations: A case series. Int J Mycobacteriol 2018;7:288-91.
4. Thomas M, Antony M. Cutaneous lupus vulgaris: Bringing the wolf out of the darkness. Glob Dermatol 2014;1:39-44.
5. Lu Y, Wang H, Zheng H, Li X. Bilateral "turkey ear" as a cutaneous manifestation of lupus vulgaris. Indian J Dermatol Venereol Leprol 2018;84:687-9.
6. Chhangte MZ, Thakur BK, Verma S, Dey B. Ulcerative lupus vulgaris primarily involving the ear lobule. Indian Dermatol Online J 2019; 10:729-31.
7. Gogia S, Agarwal A. Solitary lupus vulgaris of pinna: A rare presentation. Indian J Otol 2013;19:30-2.