



**ORIGINAL RESEARCH PAPER**

**Dermatology**

**LUPUS MILIARIS DISSEMINATUS FACIEI (LMDF): A RARE CASE REPORT WITH MANAGEMENT MODALITIES**

**KEY WORDS:** Lupus Miliaris Disseminatus Faciei, Granuloma

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**ABSTRACT**

Lupus Miliaris Disseminatus Faciei (LMDF) is a rare chronic granulomatous disorder predominantly affecting the face. Early diagnosis and management are essential to shorten the course of the disease and reduce scarring. Its a rare disease with common presentation leading to misdiagnosis. In our case, successful treatment with isotretinoin and azithromycin pulse.

**CASE REPORT**

27 year old male patient presented to Dermatology OPD with multiple, asymptomatic, reddish to brown papules on face for the past 6 months. Initially he developed few reddish papule on the central aspect of the face, which slowly progressed to involve the entire face over a period of 6 months. Cutaneous examination revealed multiple small erythematous papules of size ranging from 2 to 3 mm, on the forehead, cheeks and upper eyelids and chin. There were multiple deep and superficial scars, but no background erythema and telangiectasia seen. There was no lymphadenopathy. Systemic examination did not reveal any abnormalities. No history of photosensitivity, weight loss, fever, or chest infection. No relevant family or past history. No history of oral or topical medication. Diascopy of lesions showed apple-jelly nodule-like appearance.

Investigation: Blood examination and serology (VDRL, HIV) were normal. Serum angiotensin converting enzyme and serum calcium were normal. Mantoux test was negative. Xray chest was unremarkable. Punch biopsy was performed to confirm the diagnosis. Biopsy showed single large focus of tuberculoid granuloma involving mid and deep reticular dermis. The granuloma consists of lymphocytes, epithelioid cells, Langhan's and foreign body giant cells and occasional plasma cells and eosinophils. The centre of the granuloma showed a hyperplastic infundibulum that is ruptured. The rest of the dermis showed moderately dense perivascular and periappendageal inflammatory infiltrate. Special stains such as acid-fast bacillus (AFB) and periodic acid — Schiff (PAS) were both negative. Slit skin smear was negative.

**DISCUSSION:**

LMDF commonly appear as reddish brown to skin coloured dome shaped translucent papule bilaterally symmetrical over face mainly around eyelid and chin. Extrafacial lesion appears on neck, axilla, chest, scalp, trunk and genitals[1].

Pathogenesis of the disease is still not known. Earlier LMDF was considered to be a tuberculid reaction. Some considered LMDF to be a variant of granulomatous rosacea but both hypothesis are no more accepted and LMDF is a separate entity at present. Spontaneous involution occurs in 12-24 months leaving small pitted scars. It usually affects adults in second and fourth decade[1].

This condition shows aggregates of epithelioid histiocytes and occasional multinucleated giant cells surrounding a large area of caseous necrosis to form tubercle. There is a sparse

lymphoid inflammation at the periphery. It is ironical that the only caseous necrosis is LMDF and not a form of cutaneous tuberculosis. Early stage lesions are characterized by a perivascular and periadnexal lymphocytic infiltrate. Shitara had classified the histo-pathological findings of a fully developed lesion into four groups: epithelioid cell granuloma with central necrosis, epithelioid granuloma without central necrosis (sarcoidal- type granuloma), epithelioid cell granuloma with abscess and non-granulomatous non-specific inflammatory infiltrate. Late stage lesion show extensive perifollicular fibrosis with non specific cell infiltrates[2].

Misdiagnosis is common as LMDF patients are treated as acne vulgaris usually. Other differential diagnosis include granulomatous rosacea, histoid leprosy, lupus vulgaris, syringoma, trichoepithelioma, papular sarcoidosis, papular granuloma annulare, granuloma faciale, Granulomatous syphilis, deep fungal infection, perioral dermatitis, pseudolymphomas, PKDL, tuberous sclerosis fibrofolliculomas other granulomatous disorders.

Oral antibiotics available for management of LMDF are doxycycline 100mg od for 3-6 months, minocycline 50mg bd for 2-3 months, azithromycin 500mg od thrice a week pulse for 4-8 weeks, dapsone 100 mg daily 3-6 month, clofazimine 100mg od for 3-6 month[3][4][5].

Other effective modalities are isotretinoin .5mg/kg/day, oral mini pulse (OMP-tab betamethasone 5 mg on 2 consecutive days in a week) for 1-2 months, oral nicotinamide with zinc combination (nicotinamide 750 mg, zinc 25 mg, copper 1.5 mg, and folic acid 500 mcg), marketed as Nicomide, Intramuscular injection of triamcinolone acetonide 40 mg once every month for 3 months[6][7][8].

Topical agents as psoralen with PUVA, erythromycin, metronidazole, tacrolimus .1%, fusidic acid gives good results when combined with systemic treatment. Scars have been treated with intradermal prp monthly for six and 1565Nm nonablative fractionated laser resurfacing monthly 4-6 sitting [9][6]. Clinical improvement may take 3-6 months so long term treatment required.

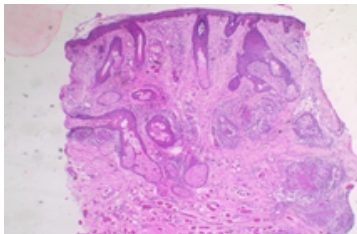
Usually a combination of drugs is preferred over monotherapy. In our case, patient was given oral isotretinoin 20mg od for 5 months with azithromycin 500mg od thrice a week for 2 months with topical fusidic acid cream with satisfactory improvement and no recurrence till date.



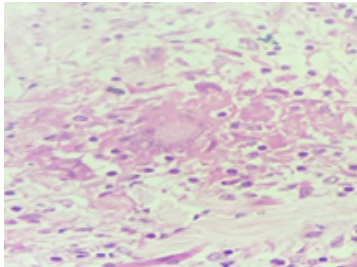
**Figure 1: Symmetrical papular lesions**



**Figures 2 : Papular lesions with superficial and deep scars.**



**Figure3: Epithelioid granuloma with caseous necrosis.**



**Figure 4: Epithelioid granuloma with caseous necrosis (10×40 magnification).**

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