CASE REPORT

Lupus miliaris disseminatus faciei: a distinctive facial granulomatous eruption

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SUMMARY

Facial granulomatous papules are important to recognise, as some of them are associated with significant systemic association, particularly sarcoidosis and certain infectious conditions. Lupus miliaris disseminatus faciei (LMDF) is a benign granulomatous disorder of unknown aetiology characterised by symmetrical, monomorphic, reddish-brown papules on the face. It is not associated with any underlying systemic involvement. We report a case of LMDF in a middle-aged man who presented to us with multiple asymptomatic and monomorphic reddish papules on the face for 3 months. Skin biopsy showed well-formed perifollicular epithelioid cell granulomas with focus of necrosis suggestive of LMDF. The lesions significantly responded to oral steroids.

BACKGROUND

Granulomatous papules on the face can be caused by several of the non-infectious and infectious conditions. Among the non-infectious disorders, sarcoidosis, granuloma annulare and granuloma faciale are important. Post kala-azar dermal leishmaniasis (PKDL) and leprosy are among the infectious granulomas that may manifest as granulomatous papules on the face. Lupus miliaris disseminatus faciei (LMDF) is an idiopathic granulomatous disorder that presents as distinctive eruptions on the face. Identifying the clinical pattern and accurately diagnosing these disorders is vital as some of them may be a marker of systemic involvement and/or disseminated infections. The purpose of this report is to highlight the classical clinical pattern of monomorphic erythematous papules of LMDF and to discuss the differential diagnosis that will help the clinicians to be aware of the different facial granulomatous papules.

CASE PRESENTATION

A 35-year-old man had multiple, asymptomatic, erythematous papules on the face for the past 3 months. Initially he developed few reddish papules on the outer aspect of the face, which slowly progressed to involve the entire face over a period of 3 months. He did not have photosensitivity or any other cutaneous and/or systemic complaints. Family history was unremarkable. Cutaneous examination revealed multiple small dome-shaped erythematous papules of size ranging from 2 to 3 mm, on the forehead, cheeks and upper eyelids (figures 1 and 2). There were no epidermal/surface changes or background erythema and telangiectasia. There was no

Figure 1 Showing multiple small erythematous papules on the forehead, cheeks and upper eyelids.

lymphadenopathy. Systemic examination did not reveal any abnormalities. With these clinical findings a diagnosis of LMDF was made.

INVESTIGATIONS

The Mantoux test was non-reactive. Chest X-ray did not show any abnormalities. Skin biopsy revealed multiple well-formed perifollicular epithelioid cell granulomas with central area of necrosis suggestive of LMDF (figures 3 and 4).

OUTCOME AND FOLLOW-UP

He was treated with oral minocycline 50 mg two times per day for a period of 2 months along with topical tacrolimus 0.1%. He did not show any improvement and continued to develop newer lesions. Hence he was given systemic steroids in the form of oral mini pulse (OMP-Tab Betamethasone 5 mg on 2 consecutive days in a week). He

Figure 2 Showing multiple small erythematous monomorphic papules on the right cheek and side of the nose.

CrossMark

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Figure 3 Photomicrograph showing perifollicular epithelioid cell granulomas with necrosis (H & E, X 40)

was reviewed after 6 weeks of OMP and an excellent response in the form of flattening of all the skin lesions (**figure 5**) was noted. He was advised to continue the same treatment for another 4 weeks and then to taper the dose of OMP gradually. There were no apparent side effects related to steroids.

DISCUSSION

LMDF, also known as acne agminata is a granulomatous eruption of unknown aetiology characterised by symmetrical, monomorphic, reddish-brown papules on the face. The lesions cluster around the eyelids and mouth besides involvement of forehead and cheeks.¹ Rarely the lesions can be extrafacial.² It affects adults of both the sexes, usually in third or fourth decade. Diascopy may reveal apple jelly nodules. Histologically, the papules show epithelioid cell granulomas with caseous necrosis. The lesions will resolve spontaneously over a period of several months with scarring and pigmentation.¹ It is a distinct entity and unlikely to be related to tuberculosis, acne or rosacea. Hence the recently proposed term of **FIGURE (Facial Idiopathic Granulomas with Regressive Evolution)** is

Figure 4 Higher magnification showing epithelioid cell granulomas admixed with lymphocytes and neutrophils, and central area of necrosis (H & E, X 200)

Figure 5 Showing remarkable improvement after 6 weeks of systemic steroids

more appropriate.^{3 4} Various treatments have been tried with variable response and these include dapsone, oral steroids, doxycycline, minocycline, retinoids, clofazimine and topical tacrolimus.¹⁻³

LMDF needs to be differentiated from other facial granulomatous papules such as papular sarcoidosis, granulomatous rosacea, PKDL, granuloma faciale and pseudolymphomas.

Papular sarcoidosis presents as skin coloured, yellow-brown or violaceous juicy papules of 1–10 mm on the face particularly eyelids and nasolabial folds. In contrast to LMDF, lesions of papular sarcoidosis may coalesce to form annular or linear plaques. There may be central depression. Associated systemic features particularly pulmonary involvement is seen in 95% of sarcoidosis cases. Skin biopsy will show multiple compact naked epithelioid cell granulomas without necrosis.^{5 6} Granulomatous rosacea is a variant of rosacea that presents with reddish-brown or yellow-brown papules on the face.⁷ The presence of background erythema and telangiectasia will differentiate these papules from LMDF. Photosensitivity and flushing are other associated features. In granuloma faciale the lesion is solitary or few in number in the form of skin coloured papule or plaque and the surface of the lesion shows telangiectasia and follicular prominence. Histologically there is polymorphous infiltrate consisting of neutrophils, eosinophils, lymphocytes, histiocytes and plasma cells. In PKDL, the papulo-nodules with background infiltration are localised over the centrafacial region that may be associated with similar lesions elsewhere and also hypopigmented lesions. Leishman-Donovan bodies are identified in the slit skin smear and biopsy.⁸

Contributors TD, TT, GS were responsible for patient evaluation, care and treatment. ML was responsible for histopathological evaluation. TD and GS wrote the manuscript. All authors critically revised and approved for submission.

Learning points

- ▶ Lupus miliaris disseminatus faciei (LMDF) is a granulomatous eruption characterised by symmetrical, monomorphic, reddish-brown papules on the face.
- ▶ LMDF may masquerade other facial granulomatous papules that are associated with underlying systemic involvement. Hence recognising the clinical pattern and diagnosing this condition is of utmost importance.
- ▶ Early lesions are treated with topical tacrolimus and extensive lesions may require systemic steroids.

Competing interests None declared.

Patient consent Obtained.

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