CASE 7

**Patient:** A 63-year-old Thai female from Pathumthani

**Chief Complaint:** Progressive facial eruption in 1 month

**Present Illness:** The lesions involved only facial area without itching or pain. No associated systemic symptoms and precipitating factors including sunlight, spicy foods were noted. The eruption was not improved with topical steroids.

**Past History:** None

**Family History:** Unremarkable

**Dermatological Examination (Figure 7.1-7.3):** Multiple discrete dome-shaped erythematous papules and plaque on face, Rt. Eyelid

![Figure 7.1](image1)
![Figure 7.2](image2)
![Figure 7.3](image3)

**Histopathology (S10-5379) (Figure 7.4-5):** Perifollicular nodular infiltrate of histiocytes, multi nucleated langerhan giant cells and some lymphocytes with the features of tuberculoid granuloma and central necrosis
**Investigation:** CXR-no infiltration, PPD-negative

**Diagnosis:** Lupus miliaris disseminatus faciei (LMDF)

**Treatment:** Doxycycline (100) 1*2

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**Discussion:**

Lupus miliaris disseminatus faciei (LMDF) or acne agminata is a rare asymptomatic granulomatous skin eruption which is characterized by multiple discrete red-brown, dome-shaped papules on the medial and lateral areas of the face especially on and around the eyelids, and often extends on to head and chin. Extrafacial manifestations are not uncommon and may affect axillae, shoulders, arms, hands, groins and legs. Lesions have the appearance of an ‘apple jelly’ color on diascopy. With the chronic progressive course of disease, LMDF is usually developed spontaneous involution in about 1-2 years and typically leaves small pitted scars.

Epithelioid granuloma with central necrosis is the histopathological hallmark. However, the histological pattern can vary according to the timing of the biopsy. In the early
lesions, superficial perivascular infiltration of lymphocytes, histiocytes and occasional neutrophils are noticed while dermal fibrosis especially around the hair follicles is reported in late lesions. In the fully established lesions, tuberculoid or suppurative granulomas might be shown. As a result, LMDF histologically resembles tuberculosis, sarcoidosis, granulomatous rosacea and other granulomatous disorders. Therefore, LMDF has been termed Lewandowsky's rosacea-like tuberculid, micropapular tuberculid, lupoid rosacea and Facial Idiopathic GranUlomas with Regressive Evolution (F.I.G.U.R.E).

Pathogenesis of LMDF is unclear and controversial. Possible involving etiologies include granulomatous rosacea, tuberculid, papular form of sarcoidosis and demodex folliculorum. Regarding to the histological association with pilosebaceous units and granulomas, granulomatous rosacea was issued. Nevertheless, granulomatous rosacea is commonly presented in a 20 to 50 year-old female with erythema, telangiectasia, flushing, blepharitis and conjunctivitis with no lower eyelids involvement then, the resolution occurs without scar. Alcohol, ultraviolet and spicy food are the precipitating causes of rosacea. Topical metronidazole and oral tetracyclines are drugs of choice. On the other hand, LMDF is generally found in young adult male with multiple singly or crops of erythematous to brownish papules on face and eyelids. Clinical course shows chronic but spontaneous resolution with scars. No aggravating factor and no consistent treatment are shown. Though both LMDF and tuberculid demonstrate similar histopathology of tuberculoid granuloma, LMDF does not present the evidence of tuberculosis-no concomitant TB, no bacilli and negative PCR for TB in lesions and variable response to both PPD and antituberculosis. Also, both LMDF and sarcoidosis can reveal
naked granuloma; however, LMDF do not have systemic symptoms especially lung involvement, like sarcoidosis. Previously, this granuloma formation was regarded as a delayed-type hypersensitivity reaction to demodex folliculorum; nonetheless, the association has not been confirmed. Later, LMDF is assumed as a granulomatous reaction to hair follicle destruction or ruptured epidermal cysts.

It is difficult to control the progression of LMDF. Numerous studies of various treatments with variable responses have been published. Medications previously reported are low-dose prednisolone, dapsone, tetracycline, doxycycline, minocycline, clofazimine, antimalarial, antituberculosis and isotretinoin. Lastly, 1450-nm diode laser has been used to disrupt sebaceous glands and hair follicles in order to decrease sebum production and reduce inflammation. Generally, tetracycline has been proposed as the first line of treatment. However, the controlled study to establish the best treatment is lacking.

In conclusion, doxycycline has been prescribed to this patient. No progressive eruption and slight improvement have been shown.

References


