Numerous Minute Round Glistening Papules on Photodistributed Skin in a 4-year-old Boy

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CASE REPORT

A 4-year-old boy experienced numerous minute, round, glistening, flat-topped, flesh-colored to pink or reddish-brown papules, 1 to 3 mm in diameter, on the face, dorsa of hands, extensor aspects of forearms and lower legs of 2 year’s duration (Fig. 1). There was a history of summer exacerbation with occasional pruritus. No other part of the body was affected. The palms, soles, nails, mucous membranes, and scalp were spared. He had been in good health and there was no previous history of atopic dermatitis, lichen planus or similar lesions.

The histopathological findings showed a circumscribed granulomatous infiltrate which was composed of lymphocytes, histiocytes and some Langhans-type giant cells. The granulomatous infiltrate approximated the lower surface of the epidermis and was confined to a widened dermal papilla. The overlying epidermis was thin with diminished granular layer, and a prominent vacuolar alteration of the basal cell layer with focal subepidermal cleft formation was also noted. The adjacent rete ridges extended downward and seem to clutch the dermal infiltrate in the manner of a “claw clutching a ball” (Fig. 2). The immunofluorescence study was negative.

Fig. 1
There are numerous minute, round, glistening, flat-topped, flesh-colored to pink or reddish-brown papules, 1 to 3 mm in diameter, on the face (A), dorsa of hands (B), extensor aspect of forearm and lower leg (C and D).

Fig. 2
Microscopically, it showed a circumscribed granulomatous infiltrate composed of lymphocytes, histiocytes and some Langhans-type giant cells. The infiltrate approximated the lower surface of the epidermis and was confined to a widened dermal papilla. The overlying epidermis was thin with diminished granular layer, and a prominent vacuolar alteration of the basal cell layer with focal subepidermal cleft formation was also noted. The adjacent rete ridges were elongated and seemed to clutch the dermal infiltrate in the manner of a “claw clutching a ball”. (H&E x200)

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DIAGNOSIS: Actinic Lichen Nitidus

DISCUSSION

Actinic lichen nitidus is a rare photodistributed variant of lichen nitidus that appears more common in dark-complexioned individuals with a history of exacerbation after significant sun exposure during the summer months. It is seen in both pediatric and adult patients. The lesions may improve with sun protection and topical steroids, however, recurrences are common during subsequent summer seasons. Classic lichen nitidus (LN) is an uncommon chronic inflammatory condition of unknown cause. The dermatosis consists of multiple, discrete, minute, round, flat-topped, flesh-colored to pink or reddish-brown glistening papules 1 to 3 mm in diameter that are commonly found on the flexural surfaces of the arms and the wrists, lower abdomen, breasts, the glans and shaft of the penis, and other areas of the genital region or may occur in a generalized form occasionally.

Before the description of actinic lichen nitidus by Hussain in 1998, summertime actinic lichenoid eruption was first described by Bedi in 1978. Other synonyms such as lichen nitidus actinicus or photosensitive lichen nitidus were proposed by Kanwar and Kaur. Hussain also suggested that the term summertime actinic lichenoid eruption should be replaced with actinic lichen nitidus because not only is the latter term descriptive but it also reflects the parallelism between classic lichen planus (LP) and LN on the one hand, and actinic LP and actinic LN on the other.

Since sunlight is incriminated as a precipitating and perpetuating factor in lichen planus, especially of the actinic variety, it is possible that it may also play a role in the etiology of lichen nitidus, especially in patient like ours in whom the lesions are limited to photosensitive areas.

The diagnosis of actinic lichen nitidus is easily established based on the characteristic morphology, distribution, and clinical history. The pathognomonic microscopic changes of skin biopsy will confirm the diagnosis. Direct immunofluorescence examination is usually negative.

The treatment modalities, mostly from isolated case reports, include topical and systemic steroids, topical tacrolimus, systemic cetirizine, levamisole, astemizole, etretinate, itraconazole, cyclosporine, topical dinitrochlorobenzene. Clinical improvement of palmoplantar lichen nitidus with actretin 75 mg (0.75 mg/Kg) daily treatment was also reported by Lucker et al. The authors speculated that the down-modulation of lymphocyte activation by acitretin based on the findings of a concentration-dependent inhibition of DNA synthesis in mitogen-stimulated lymphocytes and inhibiting the antigen-presenting properties of epidermal cells in vitro. Furthermore, sun protection appears to be more important therapeutically than topical steroid in actinic lichen nitidus.

The presented patient was treated with oral acitretin 12.5 mg (0.66 mg/Kg) daily for 5 weeks, and clobetasol propionate ointment applied locally twice a day with sun-protection measurement. The lesions partially resolved over two months.

REFERENCES

Several Erythematous Papules with a 1.5-cm Sized Nodule Scattering on the Face of an Old Woman

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CASE REPORT

A 67-year-old woman presented with a 4-month history of asymptomatic papules on the face. She was a housewife with unremarkable past medical history. On physical examination, these dome-shaped papules were variably sized with erythematous hue, and some of them showed tendency to confluence. They were disseminated on the periorbital and paranasal regions. Both cheeks were also involved. A large brownish red nodule measuring 1x1.5-cm in size was noted on the right upper eyelid. Some papules were confluent and developed a 1.5-cm long transverse nodule on the left upper eyelid (Fig. 1). A biopsy was taken from the right eyelid and sent for histopathologic examination, including acid-fast stain and diastase periodic acid Schiff reaction (Fig. 2). Microscopic examination showed granulomatous inflammation with perifollicular granulomas and focal caseous necrosis in the dermis. Neither mycobacterial bacilli nor hyphae of fungi were demonstrated.

Fig. 1
(A) Variably sized erythematous dome-shaped papules on the face with tendency to confluence. (B) A large brownish red nodule measuring 1x1.5-cm in size on the right upper eyelid. (C) Cheeks involvement. (D) Scattered papules on the perioral and paranasal regions.

Fig. 2
(A)(B)(C)(D) The histopathology and special stain of the nodule on the right upper eyelid and the papule on the perioral region showed similar findings with superficial perifollicular granulomatous inflammation and caseous necrosis. (C)(D) Stains for mycobacterial bacilli and hyphae of fungi demonstrated negative results.
DIAGNOSIS: Acne Agminata (lupus miliaris disseminatus faciei, LMDF)

DISCUSSION

LMDF, as known as acne agminata, is a self-limited disease of unknown etiology. LMDF usually occurs on the face, but extrafacial presentations have been reported.\(^1\)\(^,\)\(^2\) It clinically shows discrete brown papules of diameter about 1-3 mm.\(^3\) A 1.5 cm nodular lesion was present in this case, which is a rare feature. It is characterized by superficial granulomatous inflammation with central caseation necrosis in the perifollicular granulomas.\(^1\)

LMDF may have a multifactorial aetiology. Mycobacterium tuberculosis or its products may cause a caseous necrosis and thus maybe one of several possible causes.\(^4\) Some authors view LMDF as a variant of granulomatous rosacea or a presentation related to Demodex folliculitis. Others suggest it as a new independent entity and proposed a new term: Facial Idiopathic GranUlomas with Regressive Evolution (FIGURE).\(^5\) Misago et al. postulated LMDF as a common adult form, granulomatous periorificial dermatitis as a rare childhood form, and perioral dermatitis as a peculiar form exacerbated by topical corticosteroids.\(^5\)

There are no randomized controlled studies available for the treatment of LMDF. The usual first-line therapy is oral tetracyclines with variable success rates. Dapsone, low dose prednisolone, clofazimine and isotretinoin have all been tried in some cases.\(^6\)\(^,\)\(^7\) Our case was treated with a regimen of oral tetracycline (1000 mg/d). The skin lesions showed satisfactory response to this therapy subjectively by the patient, and most papules resolved successfully with sequel of scarring after 8 months of treatment. Recently, the 1450-nm diode laser has been shown to improve LMDF.\(^7\)

REFERENCES