A Case of Childhood Granulomatous Perioral Dermatitis

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Childhood granulomatous perioral dermatitis is a distinctive granulomatous process of unknown cause with a benign and self-limited course and no associated systemic manifestations. We herein report a case of a 12-year-old Korean girl with multiple, discrete, monomorphic, flesh-colored, papular eruptions on the perioral, periocular, and perinasal areas of 7-month duration. Histopathologic examination revealed upper dermal and perifollicular granulomatous infiltrate. (Ann Dermatol 13(2) 113~115, 2001).

Key Words : Childhood granulomatous perioral dermatitis

Perioral dermatitis consists of discrete papules and vesicopustules on an erythematous and scaling base. It is a distinctive dermatitis confined around the mouth, with sparing of a rim of skin at the vermilion border. It occurs most commonly in young women[1]. Childhood granulomatous perioral dermatitis is characterized by multiple, monomorphic, papular eruptions on the perioral, periocular, and perinasal areas, it has greater prevalence in black children, and has a tendency to persist for several months before spontaneous resolution. We report herein a case of childhood granulomatous perioral dermatitis in a 12-year-old girl.

CASE REPORT

A 12-year-old Korean girl had a 7-month history of papular eruptions on the perioral, periocular, and perinasal areas. The lesions were asymptomatic. She was not taking any oral medication and was otherwise healthy. Examination of the skin revealed multiple, discrete, monomorphic, flesh-colored, papules on the periocular, perinasal and perioral areas (Fig. 1). Neither pustules nor comedones were present. A complete blood cell count, erythrocyte sedimentation rate, serum calcium, serum angiotensin-converting enzyme, liver function test, urinalysis, and chest roentgenogram were within normal limits. A skin biopsy specimen taken from the perioral area showed upper dermal and perifollicular granulomatous infiltrate. Granulomatus infiltrate was made up of epithelioid cells, multinucleated giant cell and surrounding lymphocytes (Fig. 2). There was no caseation necrosis. The lesions also showed a spongiosis of follicular infundibulum with mild mononuclear cell exocytosis. Polarization for foreign material was negative. Special stains for fungi and acid-fast bacilli were negative. Initial treatment with topical steroid, erythromycin and tretinoin for 3 months was unsuccessful. Minocycline was prescribed, and after 12 weeks of treatment, the skin lesions had completely cleared.

DISCUSSION

In 1970 Gianotti et al first described five children, aged 2 to 7 years, with a distinctive perioral eruption of asymptomatic tiny flesh-colored micronodules in French literature[2]. In 1989 Frieden et al[3] named it

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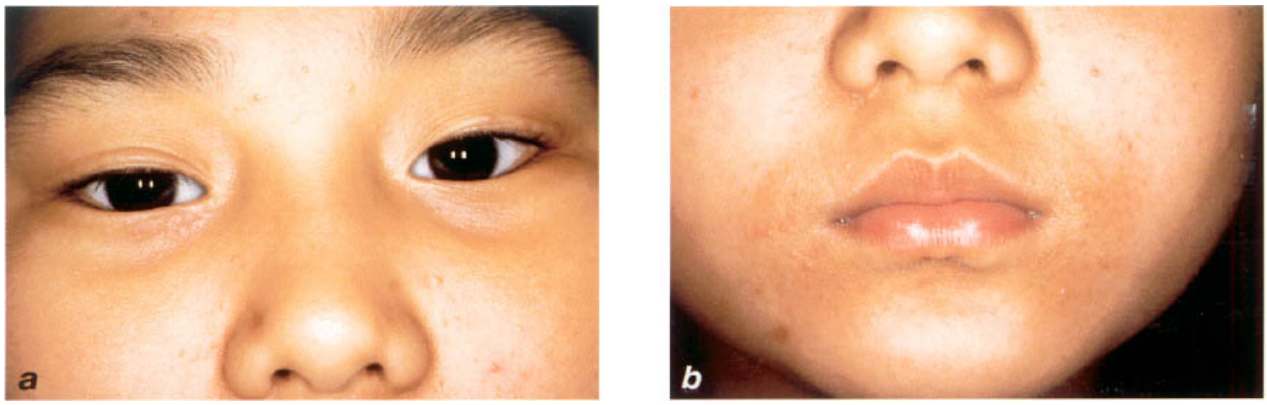

Fig. 1. Multiple, monomorphic, flesh-colored, papules on the periocular, perinasal(a) and perioral areas(b).

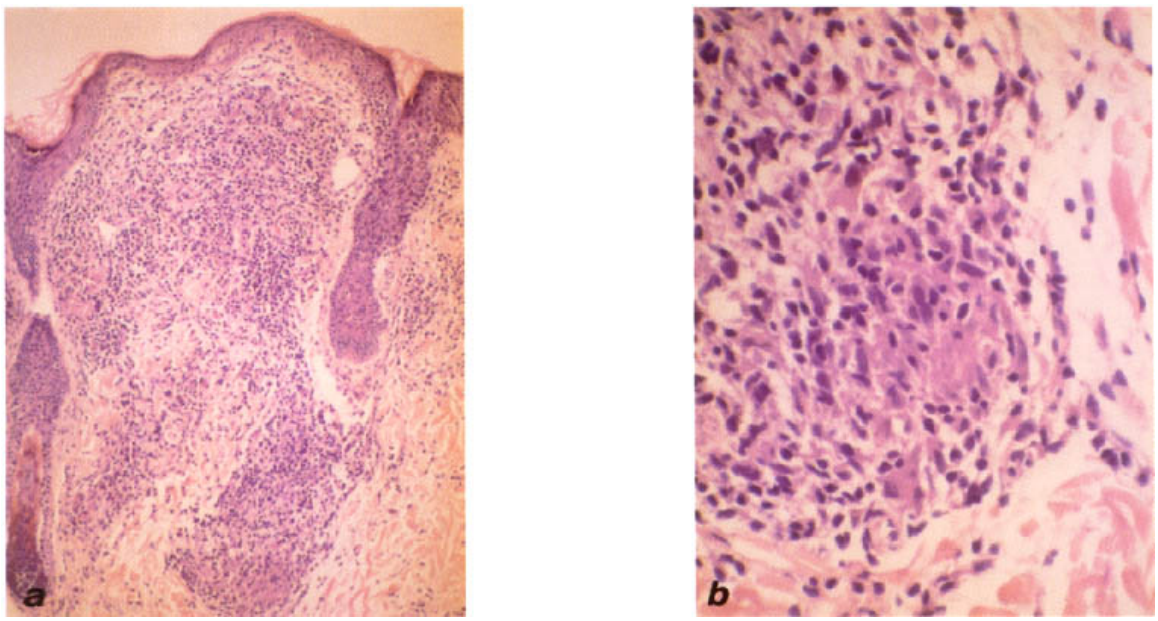

Fig. 2. (a) A skin biopsy specimen taken from the perioral area showed the upper dermal and perifollicular granulomatous infiltrate (H&E stain, ×100). (b) A granuloma composed of epithelioid cells, multinucleated giant cell and surrounding lymphocytes (H&E stain, ×400).

"granulomatous perioral dermatitis in children" on the basis of the histology. Williams et al[4] proposed an acronym FACE (facial Afro-Caribbean childhood eruption) in order to descibe five cases of monomorphic papules with a central facial distribution. In Korea, Kim et al[5] reported a case of childhood granulomatous perioral dermatitis.

Childhood granulomatous perioral dermatitis primarily affects black children. It seems to be a variant of perioral dermatitis and both conditions may occur in response to topically applied fluorinated corticosteroids but may also occur spontaneously.

The clinical features are asymptomatic, multiple, discrete, monomorphic, small, firm, dome-shaped, flesh-colored, papules without perceptible erythema or scale on the periocular, perinasal and perioral areas, but the neck and upper trunk may be affected[6]. Our patient typically presented with multiple, discrete, monomorphic, flesh-colored, papules on the periocular, perinasal and perioral areas.

A histopathology demonstrates the upper dermal and perifollicular granulomatous infiltrate. Granulomatus infiltrate consists of epithelioid cells, multinucleated giant cells and surrounding lymphocytes. There is no

caseation necrosis. However, as suggested by Williams et al[4], the presence of granulomas did not appear to be a prerequisite for diagnosis. It may represent a late or secondary phenomenon related to follicular abnormalities similar to that seen in granulomatous acne rosacea.

The differential diagnosis includes sarcoidosis, acne rosacea, benign cephalic histiocytosis, and granulosis rubra nasi. The diagnosis of childhood granulomatous perioral dermatitis can be made only when all other possibilities are excluded. Sarcoidosis is rare in childhood. When it does occur in children under 15 years of age, systemic symptoms such as fatigue, weight loss, arthritis, lymphadenopathy, and uveitis usually accompanies the cutaneous manifestations[7]. Our patient was in good health and without systemic complaints. Acne rosacea occasionally demonstrates epithelioid granuloma indistinguishable from that in our case. Clinically, however, it is characterized by flushing, telangiectasia, papules, pustules and nodules, usually present in the central third of the face. Benign cephalic histiocytosis is an eruption of reddish yellow papules on the face, neck, and upper trunk. Histologically, however, it is characterized by a diffuse dermal infiltration of histiocytic cells, which does not show granuloma or perifollicular accentuation[1]. Finally, granulosis rubra nasi is a rare familial disease of children, occurring on the nose, cheek, and chin. It is characterized by diffuse redness, hyperhidrosis, and small dark red papules that disappear on diascopic pressure. Histologically, blood vessels are dilated and there is an inflammatory infiltrate about the sweat ducts but no granulomas[1].

Most authors report a satisfactory response to oxytetracycline; doxycycline has been used successfully, and minocycline produces a prompt response[8]. The response to treatment with oral erythromycin was variable[3]. Topical metronidazole may accelerate clearing[9]. Its mechanism of action is not fully understood. Some of the proposed mechanisms include antiparasitic activity against Demodex folliculorum, suppression of bacterial skin flora, and antiinflammatory effect. Topical corticosteroids should not be used. Our patient was successfully treated witsh minocycline. Finally, patients should be reassured as to the benign and self-limited course of the condition.

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