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Case Report

Facial granulomatous periorificial dermatitis in a Tunisian child

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ABSTRACT

Childhood granulomatous periorificial dermatitis(CGPD) is a facial rash, affecting the periorificial area in children. We present the case of 7-year-old child, presented with an asymptomatic papular eruption on the face since one year. On physical examination he had numerous monomorphic erythematous papules ranging from 1 to 3 mm in diameter clustered around his perioral region predominantly with sparse papules on his periocular and perinasal regions. A skin biopsy of a perioral papule was performed showing a dense granulomatous infiltrate located around the hair follicles in the deep and superficial dermis composed of epithelioid cells, histiocytes and lymphocytes without caseation necrosis. The patient was treated with erythromycin 500 mg with emollients and his papular eruption resolved. After one year of follow-up, there was no relapse.

Key words: Dermatitis; Child; Granuloma

INTRODUCTION

Childhood granulomatous periorificial dermatitis (CGPD) is a granulomatous skin disease characterized by yellowish brown papules affecting perioral, perinasal and periocular areas. It was first described by Ginotti et al in 1970 in five children [1].It affects mainly black children, but there are cases involving Caucasian patients[2]. The etiology is controversial butthe use of topical medication can be responsible.

CASE REPORT

A 7-year-old child presented with an asymptomatic papular eruption on the face since one year. He had no personal or family history of acne, asthma, contact dermatitis or food allergies. Initially he was treated with betamethasone dipropionate 0.05% cream, twice daily on his facial eruption for 3 months by his pediatrician with a worsening of his skin condition. On physical examination, he had numerous monomorphic erythematous papules ranging from 1 to 3 mm in diameter clustered around his perioral region predominantly with sparse papules on his periocular and perinasal regions (Fig.1). The rest of his cutaneous examination was normal. A skin biopsy of a perioral papule was performed showing a dense granulomatous infiltrate located around the hair follicles in the deep and superficial dermis composed of epithelioid cells, histiocytes and lymphocytes. There was no caseation necrosis (Fig.2). The special staining for fungi and mycobacteria were negative. Immediate discontinuation of topical corticosteroids was performed. The patient was treated with erythromycin 500 mg four times a day for 2 months along with emollients. His papular eruption resolved without sequelae and after one year of follow-up, there was no relapse.

DISCUSSION

Childhood granulomatous periorificial dermatitis (CGPD) is a granulomatous disease characterized

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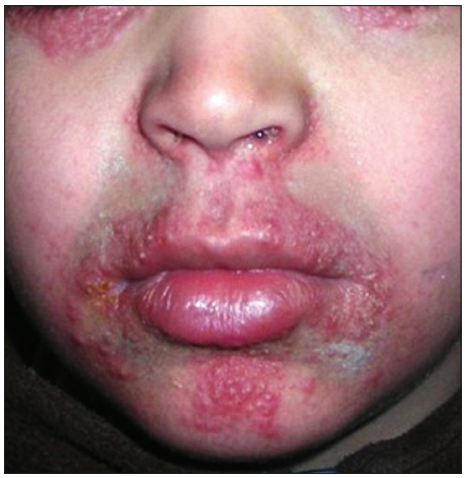

Figure 1: Numerous monomorphic erythematous papules in a periorificial distribution.

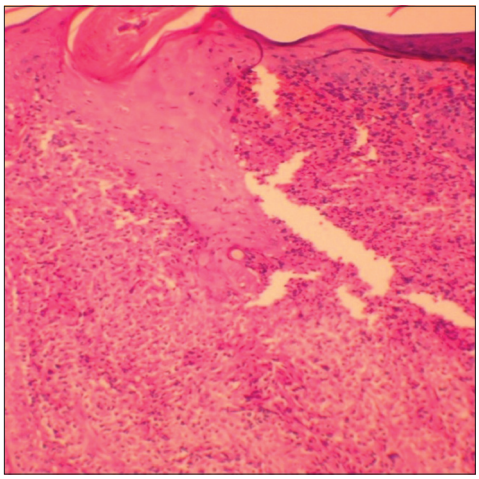

Figure 2: Lymphohistiocytic inflammatory infiltrate affecting the periphery of the follicle with multinucleated giant cells (HEx100).

by monomorphic small papular eruption with a periorificial distribution predominantly in the perioral region. It was first described by Ginotti et al in 1970 in five children [1]. It usually presents as asymptomatic flesh-colored, yellow-brown monomorphic with a periorificial distribution as in our patient with small papules affecting the perioral, periorbital and perinasal folds. Histopathologic examination is important to distinguish this entity from the other cutaneous granulomatosis and shows usually perifollicular epithelioid granulomas without a central caseation necrosis associated to a moderate inflammatory infiltrate located in the dermis and around the vessels. The age range is between 3 and 12 years. It occurs more commonly in dark skinned patients originating from Africa but Caucasian children could also be affected [2]. CGPD is a controversial disease. Its etiology remains unclear. Some authors consider that it could belong to the large spectrum of granulomatous rosacea in children; others consider that it is a distinct entity with a particular clinical behavior. Differential diagnosis may include granulomatous rosacea, cutaneous sarcoidosis, perioral dermatitis, lupus miliaris disseminates facei, perioral contact dermatitis and tinea incognito. Granulomatous rosacea could also be mistaken with CGPD featuring almost the same clinical and histological findings but it is uncommon in children [2-5]. Cutaneous sarcoidosis is uncommon in children, it could mimic CGPD but in sarcoidosis multinucleated giant cells are uncommon.CGPD is a self-limited disease but may be exacerbated by the application of topical steroids. For the treatment, the first step is to convince the parents to an immediate discontinuation of the topical corticosteroids. The second step is to reassure the patient and the parents that it is a benign and self-limited condition that resolves without leaving cutaneous scars. Treatment with oral tetracycline, metronidazole and erythromycin seem to be the most effective. Other treatment alternatives are represented by topical erythromycin, topical metronidazole, topical tacrolimus or azelaic acid cream which could also be useful. Combining oral antibiotics and topical tacrolimus could also be an effective treatment in some patients [6].

CONCLUSION

CGPD is a distinct entity with a self-limited evolution which should be treated with a safe treatment with low side effects. Dermatologists should be aware of this dermatitis since it could affect Caucasian children and could be easily mistaken with the other acneiform eruptions.

Consent

The examination of the patient was conducted according to the Declaration of Helsinki principles.

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