An aggressive case of granulomatous eosinophilic pustular folliculitis on the face

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INTRODUCTION

Eosinophilic pustular folliculitis (EPF) is a rare, chronic, relapsing dermatosis predominantly seen in East Asians that was first described in 1970 by Ofuji. The lesions are characterized by pruritic follicular papulopustules with a predilection for seborrheic areas. Typically, small papules enlarge and coalesce into large plaques, usually on the face.[1] We present an aggressive case of granulomatous EPF on the face.

CASE REPORT

A 53-year-old man was referred to us, complaining of a recalcitrant extensive pruritic eruption on his face. He had been treated with topical corticosteroids, topical antibiotics, and oral tetracycline at previous hospitals without a definitive diagnosis. On examination, he had extensive well-defined erythematous, indurated plaques with numerous pustules and crusts involving the cheeks bilaterally, the nose, and the forehead (Fig 1, *A-C*). The lesions covered more than 40% of his face. There was nothing in particular to note in blood tests including a complete blood count, blood chemistry, immunoglobulins, antinuclear antibodies, antids DNA antibodies, and anti−SS-A and anti−SS-B antibodies. The histopathologic findings of a biopsy specimen taken from his left cheek found dense infiltration of neutrophils and eosinophils within the hair follicles. There was also dense infiltration of lymphocytes, eosinophils, monocytes, and neutrophils around the follicles and sebaceous glands in the dermis. The cell infiltration in the dermis was granulomatous (Fig 1, *D* and *E*). We diagnosed his condition as EPF. Oral indomethacin (75 mg/d) was started along with oral tetracycline and topical corticosteroids, and the lesions improved. After 4 weeks of treatment, there was only residual pigmentation (Fig 2, *A-C*).

Abbreviations used:

EPF: eosinophilic pustular folliculitis

DISCUSSION

Diagnosis of EPF is challenging because lesions mimic those of other common diseases such as acne, rosacea, lupus miliaris disseminatus faciei, bacterial folliculitis, dermatomycosis, seborrheic dermatosis, and mycosis fungoides. The diagnosis may become additionally challenging as in this case because treatments for these common diseases may start but be ineffective for EPF, exacerbating the lesions. This may be why the erythematous plaques on his face were firmly infiltrated, and peripheral extension with central clearing of the lesion, typically seen in classic types of EPF, was not clearly seen in this case.[2] Pathology results from the biopsy specimen allowed for the correct diagnosis. Reports of granulomatous or

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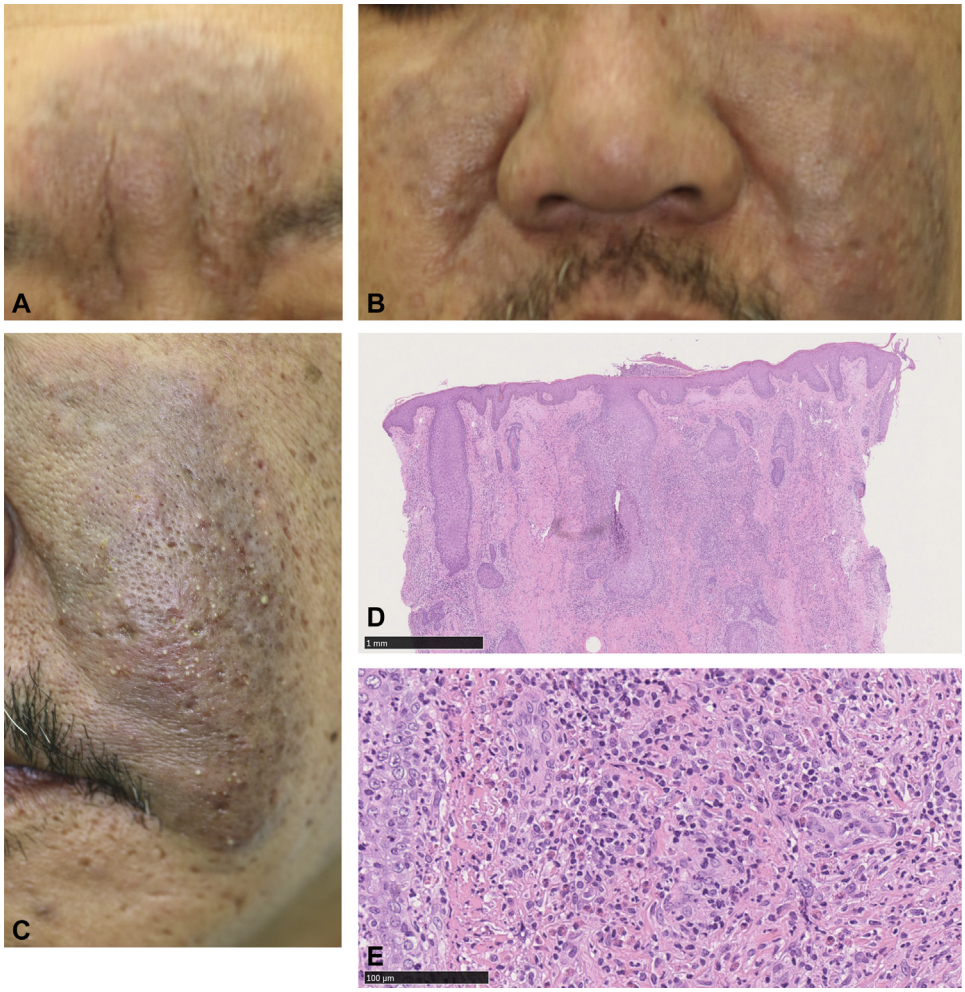

Fig 1. A-C, Eosinophilic pustular folliculitis: clinical features of the lesion. (**A** and **B**) At the initial presentation, well-defined erythematous, indurated plaques involving the nose, forehead (**A**), and the cheeks bilaterally (**B**) were seen. **C**, The plaques had numerous pustules and crusts. **D** and **E**, Eosinophilic pustular folliculitis: histopathologic features of the initial biopsy. **D**, Epidermis is intact, and dense infiltration of inflammatory cells within and around the follicules can be seen. **E**, Inflammatory cells are composed of lymphocytes, histiocytes and eosinophils. (**D** and **E**, Hematoxylin-eosin stain)

extensive cases of EPF are rare; currently, there is only 1 of each. However, compared with our case, the surface area, induration, and histopathologic degree of granuloma formation were not as aggressive.[3,4]

This case suggests that EPF may become aggressive-appearing granulomatous, with extensive erythematous indurated plaques. EPF should be considered as a differential diagnosis when there is this type of granuloma formation of the face. In such atypical cases of EPF, pathology is helpful in making a correct diagnosis. Our case is a good example of the remarkable effectiveness of oral indomethacin compared with topical steroids and oral antibiotics. The mechanism underlying its efficacy remains unclear, but it has been proposed that its inhibition of cyclooxygenase activity reduces the synthesis of eosinophilic chemotactic factor in seborrheic skin.[5]

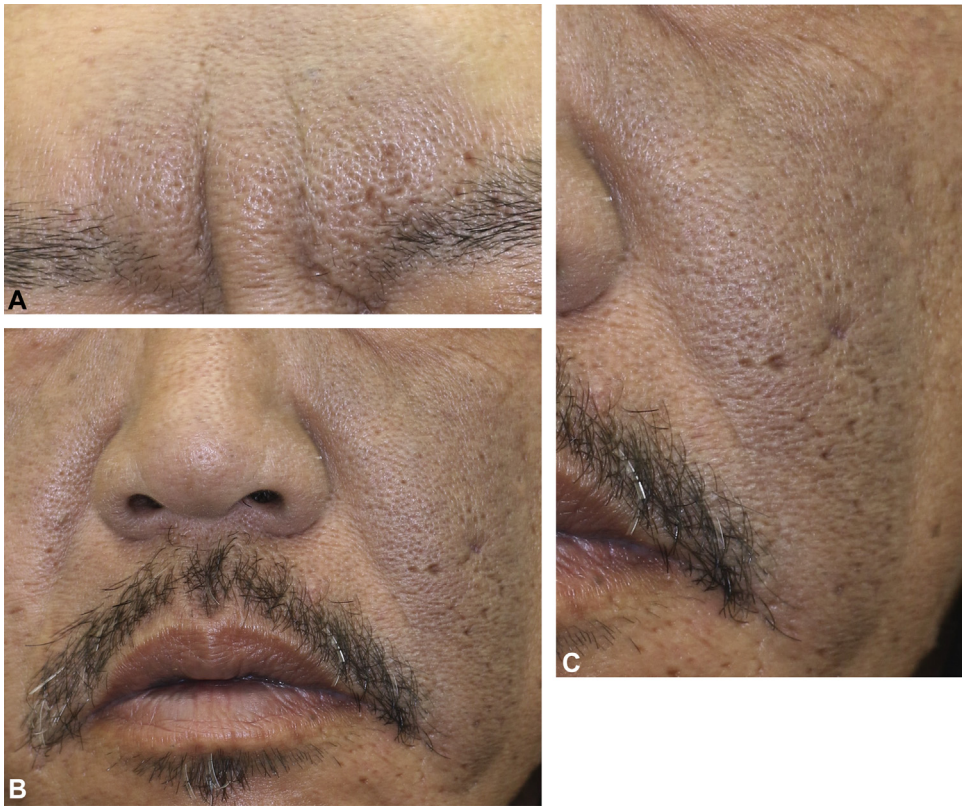

Fig 2. **A-C**, Eosinophilic pustular folliculitis: clinical features of the lesion after 4 weeks. **A** and **B**, After 4 weeks of treatment with oral indomethacin (75 mg/d), along with oral tetracycline and topical corticosteroids, there was only residual pigmentation on the forehead (**A**) and cheeks (**B**). **C**, There was no longer induration, pustules, or crust.

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