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Pemphigus Herpetiformis: An Unusual Variant of Pemphigus

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Abstract

Observation: Pemphigus herpetiformis, which is a rare form of pemphigus, presents with annular erythematous plaques, herpetiform vesicles, bullous lesions and pruritus similar to dermatitis herpetiformis clinically, but it has the immunologic features of pemphigus. A 67-years-old female patient referred to our clinic with the complaint of pruritic blisters, on her trunk and legs that appeared three years ago and exacerbated a month ago. The histopathologic examination of the skin biopsy, conducted on with prediagnoses of bullous pemphigoid, dermatitis herpetiformis and linear IgA bullous dermatosis revealed intraepidermal bullous dermatitis, and intercellular staining of IgG and C3 with direct immunofluorescence method. Desmoglein antibodies were detected to be positive for desmoglein-1, and negative for desmoglein-3. With all these findings the patient was diagnosed to have pemphigus herpetiformis.

Introduction

Pemphigus is an autoimmune bullous disease, affecting skin and mucosa and characterized by intraepithelial blisters resulting from autoantibody-induced disruption of the components of the intercellular connection units, the desmosomes. Pemphigus is divided into two major types: pemphigus vulgaris (PV) and pemphigus foliaceus (PF) [1]. PV is the form with predominantly mucosal involvement and dissociation at the suprabasal level. Antibodies in PV are developing mainly against desmoglein-3 and less often against desmoglein-1. In PF there is only skin involvement without mucosal involvement and mainly subcorneal dissociation with antibody development against desmoglein-1[1, 2].

Pemphigus has several other subtypes; including pemphigus herpetiformis, pemphigus vegetans, pemphigus erythematosus, endemic PF, paraneoplastic pemphigus, drug-induced pemphigus, IgA and IgG pemphigus [1, 3]. Pemphigus herpetiformis is an unusual variant, accounting for nearly 7% of all pemphigus cases [4]. It was first described by Jablonska et al. in 1975 [5]. It combines the clinical features of dermatitis herpetiformis with the histological and immunologic features of pemphigus [6]. PH most commonly presents in the fifth or sixth decades of life [7]. Herein, we report a new case of pemphigu s herpetiformis which is a rare subtype of pemphigus.

Case Report

A 67-years-old female patient referred to our clinic with the complaint of pruritic blisters, on her trunk and legs that appeared three years ago and exacerbated a month ago. There was no specific feature in her personal or family history. Dermatological examination revealed erythematous, scaly plaques and erosions on her scalp. There were erythematous plaques, circinated urticarial plaques with a few vesicules, scattered intact bullae, and excoriated crusty papules allover the body but especially on the lower extremities (**Figures 1 and 2**).

The histopathologic examination of the skin biopsy, conducted on with prediagnoses of bullous pemphigoid, dermatitis herpetiformis and linear IgA bullous dermatosis revealed intraepidermal bullous dermatitis (**Figure 3**), and intercellular staining of IgG and C3 with direct immunofluorecence (DIF) method (**Figure 4**). Desmoglein ant ibodies were detected to be positive for desmoglein-1, and negative for desmoglein-3. With all these findings the patient was diagnosed to have pemphigus herpetiformis and systemic corticosteroid treatment was started. The patient responded well to prednisone 40 mg daily. There was no new lesion appearance from the seventh day of the treatment. The disease remained under control with low-dose prednisone; tapering the dose over 18 months. (**Figures 3 and 4**)

Discussion

Pemphigus herpetiformis is a rare form of pemphigus that can present as a clinical variant of either pemphigus vulgaris or pemphigus foliaceus; or that can transform into one of these two types during the disease course [**2**].

Pemphigus herpetiformis resembles dermatitis herpetiformis clinically but it has the immunologic features of pemphigus [**8, 9**]. Clinically it presents with annular erythematous plaques, herpetiform vesicles, bullous lesions and pruritus similar to dermatitis herpetiformis. Typically it involves trunk and proximal parts of extremities [**10**].

Common histopathologic findings are eosinophilic spongiosis, intraepidermal and subcorneal microabscess formation and superficial blisters accompanied by acantholitic cells; while DIF examination reveals intercellular IgG and C3 accumulation in the superficial intraepidermal region [**8, 10, 11**]. The histopathological feautures in PH may vary according to the evolution of skin lesions and typical findings of pemphigus emerge only later in the disease process [**12**]. Due to this diversity, the diagnostic confirmation of the disease depends on the detection of intercellular IgG by DIF and the presence of circulating antibodies [**13**]. The antibody profile against desmosomal proteins reveals mainly antidesmoglein 1 and, less commonly antidesmoglein- 3 [**1**].

As pemphigus herpetiformis is clinically similar with dermatitis herpetiformis, bullous pemphigoid and linear IgA dermatosis these disorders should be considered in the differential diagnosis [**2, 8, 11**]. Accordingly, we ev aluated our patient who had pruritic herpetiform vesicular lesions around circinate erythematous urticarial plaques clinically,in terms of these differential diagnoses. DIF examination revealed intercellular staining with IgG and C3 but not with IgA, so dermatitis herpetiformis and linear IgA dermatosis diagnoses were excluded; while bullous pemphigoid di-

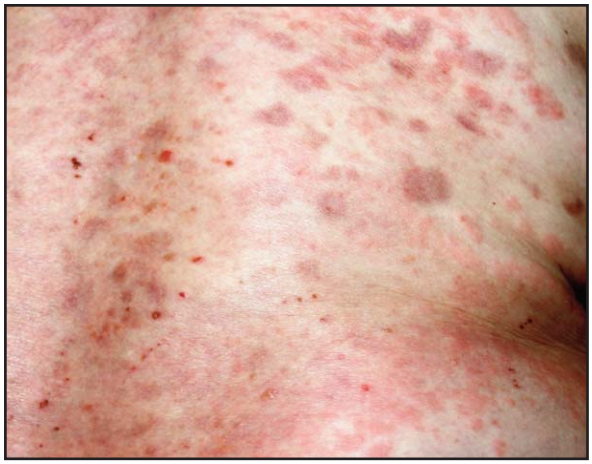

Figure 1. Erythematous urticarial plaques and herpetiform vesicles

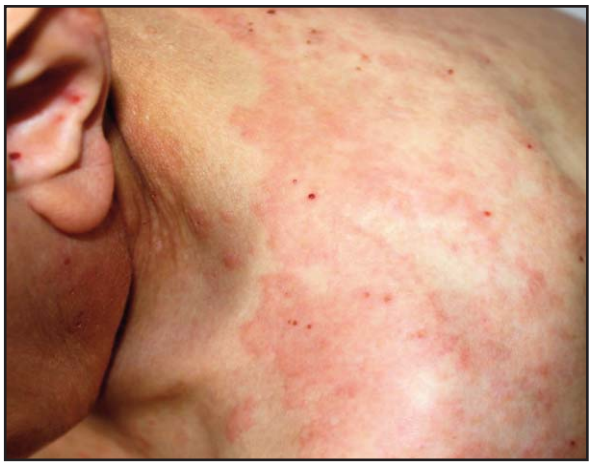

Figure 2. Circinated urticarial plaques

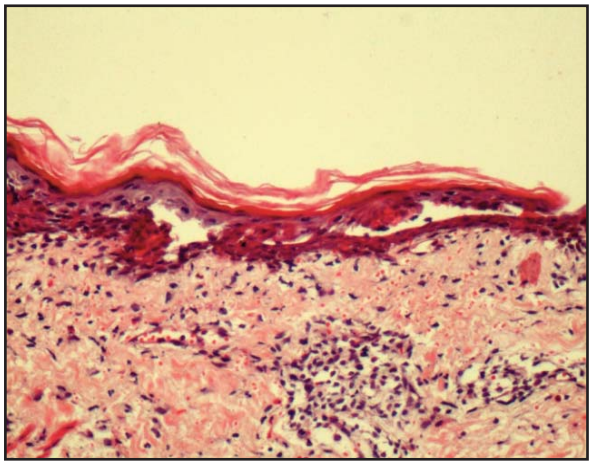

Figure 3. Eosinophils accompanying superficial perivascular lymphocyte infiltration below the epidermis showing intraepidermal clefting (HE x200)

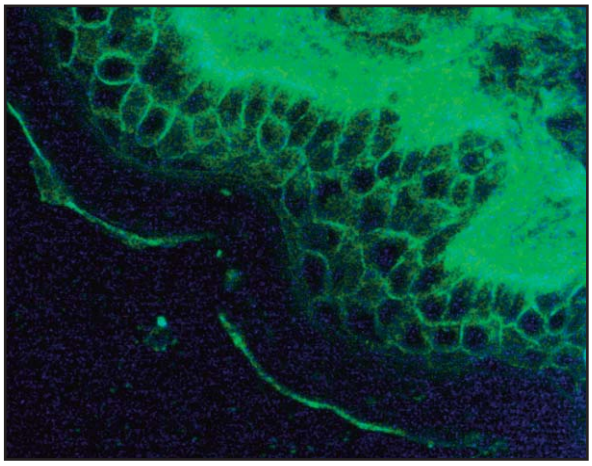

Figure 4. Epidermal intercellular IgG accumulation in direct immunofluorescence examination

agnosis was excluded as desmoglein-1 was detected to be positive.

Generally the disease has a benign course, with a good response to treatment of dapson (100-300 mg/day) and/or low dose oral corticosteroids [**1, 6, 14**]. Although associations have been reported between pemphigus he rpetiformis and autoimune disorders and malignancies they are rare and a strong relationship could not be demonstrated [**15**].

In conclusion, we wanted to emphasize that pemphigus herpetiformis which is a rare subtype of pemphigus, should be considered in the differential diagnosis of bullous skin disorders. But because of its clinical similarity with bullous diseases like dermatitis herpetiformis, bullous pemphigoid and linear IgA dermatosis; and the diversity of its histopathology according to the evolution of skin lesions, the diagnostic confirmation of the disease can only be possible by combining the clinical, histopathological, serological and immunofluorescence findings.

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