Case No. 17

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Patient: A 42-year-old Thai man from Bangkok

Chief complaint: Intractable stomatitis for 1 year

Present illness:
   The patient developed intractable stomatitis with itchy rash on perianal area for one year. The cutaneous lesions started with few discrete vesicles and bullae on his face, scalp, right arm and with itchy rash on perianal area. Then, the lesions on his scalp and perianal area gradually progress into jagged mass. The lesions became more itching and occasionally painful without tendency to heal.

Underlying disease: Nil

Family history: Nil

Physical examination: Unremarkable
   Eye: Normal eye examination

Dermatologic examination:
   Skin: localized large well-defined papillomatous vegetating erythematous plaques on perianal area
   Few discrete tense bullae on face, scalp, right arm with BSA involvement ~3%
   Few discrete dark brown patches on trunk and extremities
   Oral cavity: multiple oral ulcer and erosive plaque in buccal cavity with cerebriform tongue (Premalatha sign)
   Nail: Unremarkable

Investigation:
   CBC: within normal limit
   LFT: within normal limit
   Stool examination: no parasite found
   Anti-HIV: negative
   Viral hepatitis profile: HbsAg negative, anti-Hbs positive, anti-HCV negative

Histopathology: Slide No. 60-0153B (lower perianal area)
   Sections display suprabasal separation of the hyperplastic epidermis with acantholysis and neutrophilic infiltration within the blister. The dermis shows a superficial perivascular infiltration with lymphocytes and neutrophils.

Immunofluorescence study:
   Direct immunofluorescence showed positive IgG and C3 at intercellular space of epidermis. Indirect immunofluorescence was positive (1:80) for pemphigus IgG autoantibody.
   Blood for anti-desmoglein 3 antibody was also positive.

Diagnosis: Pemphigus vegetans

Treatment: The patient was treated with prednisolone 45 mg/day and azathioprine 100 mg/day. The lesions resolved leaving postinflammatory hyperpigmentation.
**Discussion:**

Pemphigus vegetans is a rare clinical variant of pemphigus vulgaris. There is a production of immunoglobulin G (IgG) antibodies against desmoglein, an intercellular adhesion protein leading to acantholysis.\(^1\) This disorder is characterized by vegetating lesions more commonly over flexures. Cerebriform tongue, a morphology with typical pattern of sulci and gyri over dorsum of the tongue, is a well-known sign seen in pemphigus vegetans.\(^2,4\)

Pemphigus vegetans was first described by Neumann in 1876. It is clinically classified as two variants. 1) Neumann type with oral lesions that resemble flaccid bullae and small ulcerated areas and 2) Hallopeau type with pustular lesions and a benign course with few relapses.\(^5,6\) They can occur over the lesions of pemphigus vulgaris or over normal skin. As in pemphigus vulgaris, 50 percent of pemphigus vegetans cases begin in the oral cavity months preceding skin lesions. Patients with cutaneous lesions will ultimately develop oral manifestations later. The large plaques seen in our patient were typical pattern of sulci, gyri over the flexural lesions seen in pemphigus vegetans. Cerebriform tongue, described as “Premalatha sign”, was found in this patient. In a study of 12 pemphigus vegetans, 6 cases of Neumann type (50%) showed cerebriform tongue and two cases had a cerebriform scalp.\(^3,4\) The papillary hyperplasia occurring in pemphigus vegetans could be the cause of the cerebriform morphology.\(^2\)

Pemphigus vegetans is caused by intercellular autoantibodies primarily against desmogleins 1 and 3, which are adhesion molecules in the desmosomes of keratinocytes.\(^7\) Previous studies have consistently reported autoantibodies against desmoglein 3 in patients with pemphigus vegetans. Autoantibodies against desmoglein 1, desmocollin 1 and 2, and periplakin have occasionally been detected in previously reported cases.\(^7,9\)

The patient was diagnosed as pemphigus vegetans, Neumann’s type, due to clinical background and physical examination. The skin biopsy confirmed the diagnosis by showing suprabasal clefting with prominent papillomatosis and irregular acanthosis. Cleft with acantholytic cells admixed with neutrophils could be seen. Papillary dermis showed superficial perivascular infiltration with lymphocytes and neutrophils. Direct immunofluorescence presented intercellular deposition of IgG and C3. Indirect immunofluorescence was positive (1:80) for pemphigus autoantibody IgG and blood for anti-desmoglein 3 antibody was also positive. All of the evidence supported our diagnosis.

Treatment of pemphigus vegetans is similar to pemphigus vulgaris, which is normally accomplished with systemic steroids.\(^10\) However, oral administration of corticosteroids cannot always induce disease remission. The addition of immunosuppressants, such as azathioprine, mycophenolate mofetil, or cyclosporine may improve remission rates and allow a steroid-sparing effect.\(^10,11\) Patients with the Neumann type have a similar course as those with pemphigus vulgaris but they require higher dosages of corticosteroids. Remissions and relapses can be found. Hallopeau patients may have fewer relapses, and they usually respond to lower dosages of corticosteroids. Studies on the successful use of dapsone and retinoids have also been published.\(^10,11,12\)
References: