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LETTER TO THE EDITOR

Grover's disease associated with pregnancy

Dear Editor,

Grover's disease (GD) was first described by Grover in 1970 as a pruritic papular or papulovesicular acantholytic dermatosis.[1] Clinically, GD is characterized by disseminated erythematous papules or papulovesicles with erosions and crusts. In addition, the lesions tend to be extremely pruritic. GD primarily involves the upper and mid-trunk areas, although the lower trunk and proximal extremities are occasionally affected. GD can spontaneously resolve after weeks to months or it can follow a chronic relapsing course over a period of several years. The typical histological features of GD are focal acantholysis and dyskeratosis. GD occurs most commonly in white men over 40 years of age. GD occurring during pregnancy is extremely rare. It was reported once in 1985.[2] Herein, we describe a case of GD associated with pregnancy.

A 32-year-old pregnant woman presented to our hospital with a history of pruritic papular eruptions on the trunk for several weeks (Fig. 1). The eruptions consisted of multiple erythematous, brown colored papules. She was in week 29 of her pregnancy when she came to the hospital. There was no remarkable medical or familial history. Results of routine laboratory studies were within normal limits. A biopsy specimen taken from a lesion on her back revealed acantholysis at multiple levels of the epidermis. Some areas showed full thickness acantholysis similar to that seen in Hailey–Hailey disease. Other areas showed suprabasal acantholysis similar to that in pemphigus vulgaris. In addition, focal subcorneal acantholysis, which resembled pemphigus foliaceus, was also observed. These features were seen in the same biopsy sample (Fig. 2). A perivascular inflammatory cell infiltrate, which was composed of lymphocytes, eosinophils and neutrophils, was found in the dermis (Fig. 2). Direct immunofluorescence was negative. A diagnosis of GD was made based on the presence of multiple levels of focal acantholysis found in a single biopsy specimen and negative direct immunofluorescence results. Due to severe pruritus, treatment with prednisolone acetate (20 mg/day), chlorpheniramine maleate (8 mg/day) and prednicarbate ointment was done. The cutaneous lesions had completely disappeared after 2 months.

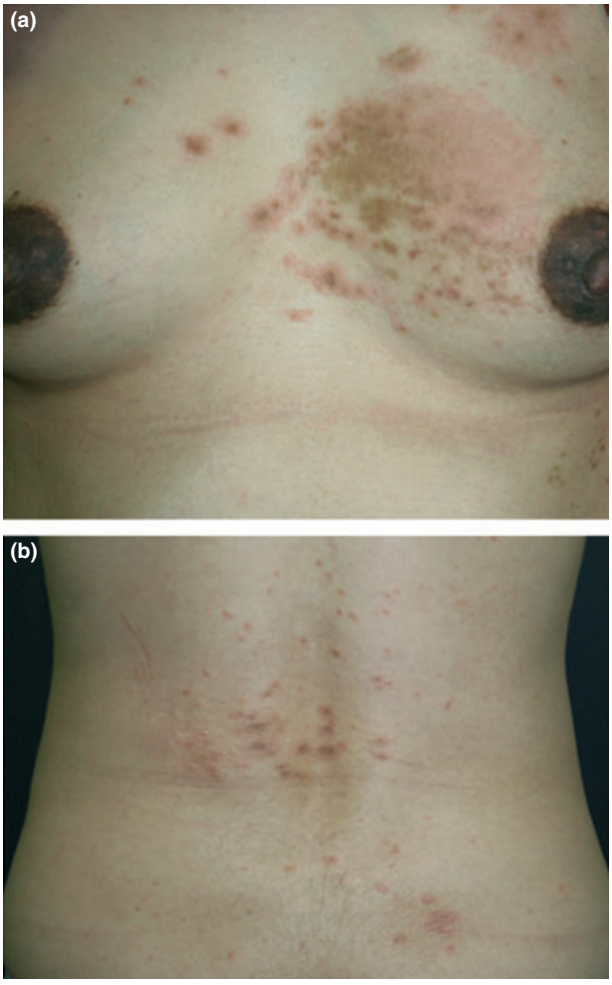

Figure 1. Multiple reddish-brown colored papules and patches on the anterior chest (a) and lower back (b).

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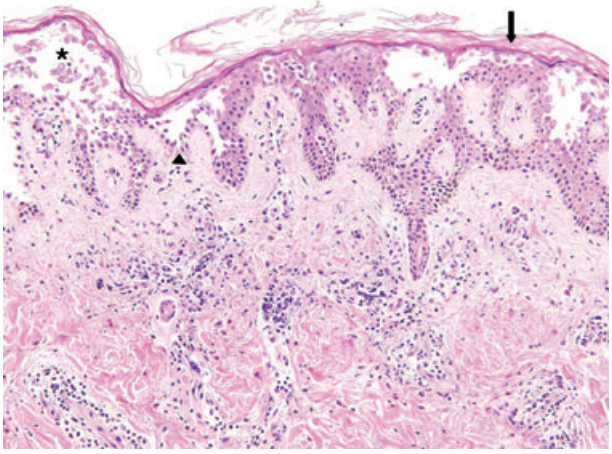

Figure 2. Pemphigus foliaceus-like (arrow), pemphigus vulgaris-like (arrowhead), and Hailey–Hailey disease-like (asterisk) patterns of acantholysis were noted in the epidermis. Perivascular lymphocytic, eosinophilic and neutrophilic infiltration in the dermis (hematoxylin–eosin stain, original magnification ×200).

Because GD rarely occurs in young pregnant women, and the patient was in the third trimester, our initial differential diagnosis included various pruritic papulovesicular dermatoses which commonly occur during pregnancy. These included pemphigoid gestationis, polymorphic eruption of pregnancy, atopic eruption of pregnancy and intrahepatic cholestasis of pregnancy.[3] Among these pregnancy-specific diseases, polymorphic eruption of pregnancy and atopic eruption of pregnancy may share similar clinical features with GD. However, in this case both could be excluded because acantholysis is not a typical histological feature of them.

The characteristic histopathological features of GD are focal acantholysis and dyskeratosis. The acantholysis seen in GD may occur in four histological patterns which can resemble pemphigus vulgaris, pemphigus foliaceus, Hailey–Hailey disease and Darier's disease. Therefore, GD should be differentiated from these acantholytic dermatoses.

The features that help differentiate GD from the other acantholytic dermatoses are the focal nature of the histological changes and the mixture of patterns. In addition, both pemphigus vulgaris and pemphigus foliaceus are autoimmune blistering diseases of the skin and mucosa. It is necessary to use immunofluorescence to demonstrate the presence of immunoglobulin (Ig)G autoantibodies directed against the cell surface of keratinocytes in order to make the diagnosis of these disorders. Therefore, it is possible to exclude pemphigus when direct and indirect immunofluorescence studies are negative. Using histology to differentiate between GD and Darier's disease or Hailey–Hailey disease is more difficult. Although dyskeratosis with corps ronds and grains is highly characteristic of Darier's disease, it can also occur in GD. A more diffuse involvement of acantholysis with an appearance of a dilapidated brick wall generally leads to a diagnosis of Hailey–Hailey disease. However, GD may also show extensive acantholysis. A clinical correlation may be helpful if the diagnosis is difficult to make on the basis of histological results. GD can be differentiated clinically from these genetic skin disorders based on the late onset of scattered lesions on the trunk which are not confluent and the absence of any family history.

The exact etiology of GD is unknown. Factors which may contribute to the pathogenesis include exposure to ultraviolet radiation,[1,4] ionizing radiation,[5] excessive sweating, heat[6,7] and xerosis.[8] Chronic relapsing GD is often associated with asteotic eczema, atopic dermatitis and contact dermatitis.[9]

The occurrence of GD during pregnancy is extremely rare. Only one case has been reported in the English-language published work. Scheinfeld and Mones[10] suggested that xerosis, sun damage, radiation damage and superficial skin infection impair epidermal integrity and provide conditions which could make a person susceptible to the development of GD. In this context, we postulated that pruritus due to pregnancy may cause a woman to scratch herself. This could cause damage to the epidermis and increase the risk of developing GD. We also suggest that although GD occurs most commonly in elderly men, it can be included in the differential diagnosis for the pruritic papular dermatoses seen during pregnancy. Skin biopsies, immunofluorescence studies and a detailed history and physical examination are all important in making the correct diagnosis in a pregnant patient who is affected by a pruritic papular or papulovesicular dermatosis.

Treatment of GD is difficult. Patients should avoid exacerbating factors such as occlusive fabrics, sunlight exposure and heat. The first-line medications used to treat GD include topical steroids, calcipotriol, calcineurin inhibitors and antihistamines. In severe

cases, oral corticosteroids, synthetic retinoids and psoralen and ultraviolet A therapy have been reported to be effective. In a pregnant patient, treatment options should be carefully reviewed.

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