Flare of Bullous Pemphigoid in Surgically Treated Skin

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Bullous pemphigoid (BP) is an acquired, pruritic, blistering eruption of the skin that typically presents as large, tense, subepidermal bullae in elderly persons. In this article, we present the case of an 80-year-old man with a 2-year history of generalized pruritus with occasional bullae in healed incision sites on his abdomen. Results of biopsy and direct immunofluorescence testing demonstrated evidence consistent with BP. This case demonstrated a BP flare in surgically treated skin, a phenomenon that has infrequently been reported in the literature.

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Case Report

An 80-year-old man with a 2-year history of generalized pruritus was referred to our department for examination. During this period, bullae had developed intermittently on the patient's abdomen after surgery for open repair of an abdominal aortic aneurysm. Owing to the polymorphic appearance of the eruption, multiple skin biopsies had been performed; results of a biopsy showed nonspecific lichenoid dermatitis with histopathologic evidence of vacuolar interface changes. Results of direct immunofluorescence testing were positive for an irregular pattern of immunoglobulin G (IgG), weakly positive for IgA, and negative for complement component 3 and IgM. A presumptive diagnosis of lichenoid drug eruption was considered because the patient was taking numerous medications. There was no clinical improvement after withdrawal of several of the medications or after treatment with topical corticosteroids and UV phototherapy.

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The findings of the physical examination included ill-defined patches of erythema on the upper torso and arms. Well-healed linear incision sites from an abdominal aortic aneurysm repair and hernia repairs were noted on the abdomen. Surrounding these sites were well-circumscribed, erythematous erosions with overlying tense bullae (Figure).

Results of a histopathologic examination of a skin biopsy specimen from one of the bullae revealed subepidermal vesicular dermatitis with prominent subepidermal separation and mixed perivascular infiltrate consisting of numerous eosinophils, histiocytes, and lymphocytes. Results of direct immunofluorescence of a perilesional biopsy sample were positive for linear deposits of IgG, but results of all other staining procedures were negative. These results were consistent with a diagnosis of bullous pemphigoid (BP) given the clinical presentation and the characteristic histopathologic findings. Because the active BP involvement was limited, the patient chose to treat the areas with topical corticosteroids only.

Comment

This case represents generalized BP with diffuse pruritus and bullae that have a predilection for previous surgical incision sites. BP is not commonly considered a disease that occurs in areas of trauma, unlike true Köbner phenomena in lichen planus, psoriasis, and vitiligo.[1] The development of BP in areas of surgical scars has previously been associated with various surgical procedures, colostomy sites, venous access sites, and amputation stumps.[2-5] Although the BP antigen is present in all persons, the autoimmune response necessary for initiating disease occurs in only some people. It has been suggested that trauma to the skin may unmask the BP antigen and result in the development of localized bullae.[6,7] Localized BP tends to follow a more benign course than generalized BP and is more responsive to topical corticosteroid therapy.[4]

Our patient stated that, though the pruritus existed prior to the abdominal surgery, the bullae

Erythematous patches with bullae on the abdomen surrounding the vertical midline scar and 2 horizontal hernia scars, one to the right of the umbilicus and the other in the right groin.

developed within this area only after the procedure. During numerous consultations with the referring dermatologist prior to the visit to our service, the patient exhibited the characteristic prodromal phase of BP, consisting of erythematous patches and intermittent urticarial plaques. It is not known whether the UV treatment the patient had received exacerbated the condition. Previous reports have noted that phototherapy can aggravate and even induce BP.[8,9]

This case demonstrates that a BP flare can occur in surgically manipulated skin, with bullae developing both within the scar and the adjacent skin.

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