

Bullous pemphigoid associated with prostate adenocarcinoma

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ABSTRACT

Bullous pemphigoid is a common autoimmune skin disease characterized by the presence of subepidermal blisters. It has been associated with underlying neoplasia in isolated reports. A 78-year-old man with generalized blisters was diagnosed as bullous pemphigoid on clinical, histopathological and direct immunofluorescence grounds. His free and total prostate specific antigen (PSA) levels were high and histopathological examination of a prostate specimen revealed prostate adenocarcinoma. We present this rare case to discuss the possible association between bullous pemphigoid and prostate adenocarcinoma.

KEY WORDS: Bullous pemphigoid, Cancer, Prostate

INTRODUCTION

Bullous pemphigoid is a blistering disease which often starts with urticaria-like and pruritic erythematous lesions. Later, large tense blisters develop both on erythematous and on normal skin. The bullae are subepidermal and intact epidermis forms the roof.¹ It is usually seen in the elderly, although it may occur at any age.^{1,2}

Bullous pemphigoid has occasionally been reported to be associated with other diseases and multiple autoimmune diseases.¹ Moreover, in isolated reports, it has been associated with underlying neoplasia.³

CASE REPORT

A 78-year-old man presented to our outpatient clinic

with the complaint of generalized pruritus and blisters for four months. Dermatological examination revealed tense blisters on erythematous skin localized to the trunk, right femoral, and both calf areas (Figures 1 and 2). Nikolsky's sign was negative. Histopathological examination of a blister revealed orthokeratosis, spongiosis, exocytosis, dermal-epidermal separation, blistering and a mixed inflammatory infiltrate especially composed of eosinophils. On direct immunofluorescence examination, there was a linear deposition of C₃ at the dermoepidermal junction, and fibrinogen on the floor of blister.

The diagnosis of bullous pemphigoid was thus made on the basis of the clinical, histopathological and direct immunofluorescence findings. As his free and total prostate specific antigen (PSA) levels were high, a prostate biopsy was performed. Histopathological

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Figure 1: Tense blisters localized to the calf



Figure 2: Tense blisters and erosions localized to the left calf

examination revealed adenocarcinoma of the prostate. The patient was thoroughly investigated and no metastasis was detected.

Treatment with methylprednisolone 80 mg/day injected intramuscularly for twenty days, followed by gradual tapering, led to regression of his bullous pemphigoid. The patient is still being periodically followed up by urologists for his adenocarcinoma of the prostate.

DISCUSSION

Bullous pemphigoid is a common autoimmune skin

disease characterized by the presence of subepidermal blisters, usually in association with tissue eosinophilia, tissue-bound IgG, and/or complement along the dermoepidermal junction, and, in most patients, the presence of circulating anti-basement membrane autoantibodies that recognize the bullous pemphigoid antigen.² It primarily affects elderly patients. Large tense bullae arise on urticarial erythematous bases or on nonerythematous skin.¹ Our patient's lesions were especially localized to the calf areas.

Bullous pemphigoid has occasionally been reported in association with other diseases, such as diabetes mellitus, rheumatoid arthritis, pemphigus foliaceus, dermatomyositis, ulcerative colitis, multiple autoimmune diseases, and myasthenia gravis.^{1,4} Although several studies have shown no difference between the incidence of malignancies in patients with bullous pemphigoid and in the general population, there are isolated reports of an association with underlying neoplasia.^{3,5} Morioka et al reported an association ratio of internal malignancies with bullous pemphigoid of 5.8%.⁶ They found this ratio to be significantly higher than that in controls aged over 70 years. Blum et al diagnosed renal cell carcinoma in a 74-year-old lady with bullous pemphigoid.⁷ Muramatsu et al reported three cases of bullous pemphigoid associated with internal malignancies, two with gastric cancer and one with rectal cancer.⁵ Sato et al reported a case of lung cancer associated with bullous pemphigoid whose skin lesions disappeared five days after the cancer surgery.⁸ Cases of cholangiocarcinoma, breast carcinoma, esophageal cancer and bladder carcinoma associated with bullous pemphigoid have been reported.³ To our knowledge, this is the first reported case of bullous pemphigoid associated with prostate carcinoma.

The relationship between bullous pemphigoid and internal malignancies may be coincidental as both diseases are often seen in the elderly,^{9,10} but why concurrent malignant disease is more common in patients with bullous pemphigoid has not been explained.

Although the possible link between bullous pemphigoid and underlying malignancy is controversial, we believe

that a detailed examination for internal malignancy is essential for patients with bullous pemphigoid.

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