

Bullous Pemphigoid associated with periprosthetic knee infection by candida.

Case report

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INTRODUCTION

Bullous Pemphigoid (BP) is an autoimmune subepidermal blistering disease affecting mainly elderly patients. Local trauma and surgery may trigger disease onset in predisposed individuals.

Few cases have been reported after total knee arthroplasty (TKA). To our knowledge, this is the first reported case of localised BP associated with periprosthetic joint infection (PJI).

CASE REPORT

A 79-year-old caucasian male with a history of liver transplantation presented with a draining sinus over the right knee seven months after primary TKA. A two-stage exchange was planned. At the first stage, an antibiotic-loaded articulating spacer was implanted, and cultures isolated *Candida parapsilosis*. Targeted antifungal therapy was started, although wound closure remained difficult and required negative-pressure wound therapy.

Ten months later, during admission for second-stage surgery, bullous lesions and superficial ulceration developed over the surgical scar. Skin biopsy showed a subepidermal blister with eosinophilic infiltration. Direct immunofluorescence demonstrated linear IgG and C3 deposition along the basement membrane, and serum anti-BP180 antibodies were positive, confirming localised BP.

Topical corticosteroids and local wound care achieved resolution of the skin lesions. Two months later, persistent infection was suspected and spacer exchange was performed. Cultures grew *Staphylococcus hominis* and *Candida parapsilosis*, and targeted antimicrobial treatment was administered.

At 5-month follow-up, wound closure remained stable, with no recurrence of bullous lesions.

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DISCUSSION

Localised BP may develop at sites of trauma, wounds or previous surgery. In this patient, repeated surgery, impaired wound healing and persistent PJI may have acted synergistically as local triggers.

BP following knee arthroplasty is rarely reported and may be underdiagnosed. Diagnosis requires clinical suspicion and confirmation by skin biopsy and direct immunofluorescence. Differential diagnoses include infection, contact dermatitis and hypersensitivity to implant-related materials or dressings.

Early dermatological assessment and multidisciplinary management may help avoid misdiagnosis and unnecessary surgical intervention.



CONCLUSIONS

1. Localised BP is a rare but clinically significant cause of cutaneous lesions following knee arthroplasty, capable of mimicking wound complications and compromising the management of periprosthetic infection.
2. Early recognition and a multidisciplinary approach are essential to achieve adequate skin coverage and complete staged reconstructive treatment.