LETTER TO EDITOR
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PSORIASIS WITH BULLOUS PEMPHIGOID: PLAUSIBLE ASSOCIATION OR CHANCE CO-INCIDENCE?

Sanjay Singh[1], Tanvi Dev[1], Firdaus Ali[2], Neetu Bhari[1], Kaushal K. Verma[1]
[1]Department of Dermatology and Venereology, All India Institute of Medical Sciences, New Delhi, India
[2]Department of Pathology, All India Institute of Medical Sciences, New Delhi, India
Corresponding Author:
Dr. Kaushal K. Verma
Professor, Department of Dermatology and Venereology,
All India Institute of medical Sciences, New Delhi, India
Email: prokverma@hotmail.com

Sir,

A 35-year-old male, known case of psoriasis for 25 years, presented with exacerbation of psoriasis since 1 month with body surface area of 20% involvement and PASI of 13.4. The patient had received various topical as well as oral therapies including oral psoralen with ultraviolet A (PUVA) therapy for psoriasis and was off treatment for 6 months. Four days prior to consultation, he started developing multiple, severely itchy, mildly erythematous urticarial plaques with occasional targetoid lesions in a generalized distribution. The lesions were predominantly present on the chest, upper back and acral areas, both on psoriatic plaques as well on unaffected skin. There was no mucosal involvement. In the next 2 days, clear fluid-filled tense vesicles and bullae developed on these lesions (Figure 1A-C).

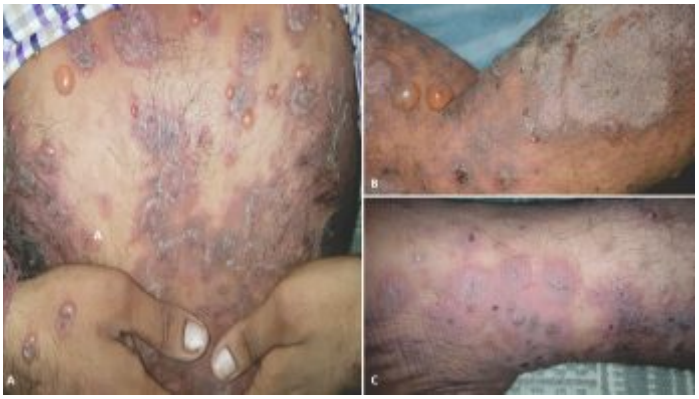

Figure 1(A-C): A&B: Involvement of chest, right lower thigh and right upper leg in form of multiple clear fluid filled tense vesicles and bullae on psoriatic plaques as well on normal skin. **C:** Occasional targetoid lesions with central vesiculation and circumferential oedematous, dusky erythema over right ankle.

Nikolsky sign was negative, while bulla spread sign was positive. A biopsy from the margin of a bulla was taken with clinical differentials of bullous pemphigoid (BP) and linear IgA disease. It revealed a subepidermal cleft with occasional eosinophils and neutrophils admixed with RBCs (Figure 2A). Direct immunofluorescence (DIF) from perilesional skin showed C3 and IgG deposition at dermo-epidermal junction. Indirect immunofluorescence (IIF) was done on salt split study of normal skin which showed linear deposition of IgG along the epidermal roof confirming the diagnosis of BP (Figure 2B). The patient was treated with methotrexate 15 mg/week, prednisolone 40mg/day and dapsone 100mg once daily. There was more than 80% improvement in both psoriasis and bullous pemphigoid lesions in the next 2 weeks following which prednisolone was rapidly tapered and stopped in 2 months while methotrexate and dapsone were continued. Four months later, methotrexate was stopped, however, dapsone was continued. There was no recurrence of bullous lesions after 5 months of follow-up.

Bullous pemphigoid is an autoimmune bullous disease characterized by extremely pruritic, tense, clear as well as hemorrhagic fluid-filled bullae over the erythematous, urticarial, or non-inflammatory base with relative sparing of the mucous membranes. The typical histopathological finding in bullous pemphigoid is a subepidermal bulla with eosinophils. DIF shows linear deposition of C3 and IgG in most cases. IIF done on salt-split study of normal skin is diagnostic which shows linear deposition of IgG at the roof of the blister. Our patient had clinical as well as laboratory tests findings consistent with bullous pemphigoid.

Several autoimmune bullous disorders have been described

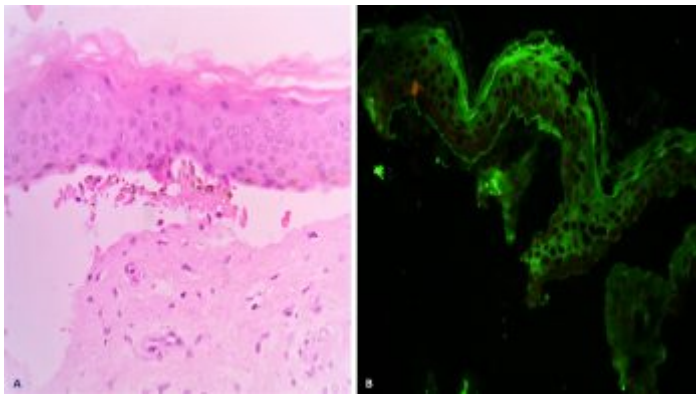

Figure 2(A,B): A: Split at dermo-epidermal junction with occasional eosinophils and neutrophils admixed with RBCs (haematoxylin and eosin, 40X). **B:** Indirect immunofluorescence (IIF) done on salt split showed linear deposition of IgG along the epidermal roof.

in association with psoriasis, of which bullous pemphigoid (BP) is the most common [1]. The inciting factor responsible for the development of BP in patients with psoriasis remains unknown. Though various hypothesis have been proposed, of which immunological damage at the basement membrane zone secondary to primary disease, damage induced by psoriasis treatment (anthralin, tar, ultraviolet B, PUVA), and common immunological mechanisms in both the diseases are the important ones[1,2]. The concept of "epitope spreading" appears quite plausible in this process, whereby tissue damage from a primary inflammatory process leads to release and exposure of a 'sequestered' antigen in exciting a secondary autoimmune response[1]. Our patient was a known case of psoriasis who received various drugs i.e. tar, PUVA in the past. Thus, immunological damage secondary to psoriasis or these therapies could possibly have contributed to the development of bullous pemphigoid in him. Recently, many biologics i.e. etanercept, efalizumab, ustekinumab and secukinumab have been attributed for development of BP in patients of psoriasis[3–5]. We have summarized the recently reported cases of BP developing in psoriasis patients (Table 1)[3-13].

Various drugs, alone or in combination i.e. methotrexate, acitretin, azathioprine, dapsone, mycophenolate mofetil, etanercept,and rituximab have been used successfully to treat BP with psoriasis[1,14–16].

We report this case in view of the rarity of these two common dermatological disorders occurring in the same patient and a good response to a combination therapy of prednisolone, methotrexate and dapsone.

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Authors	Age & Sex	Duration of psoriasis	Type of Psoriasis and BP	Associated disorder	Treatment	Response
Wilmer et al.[3]	79y/F	-	CPP; anogenital bullous pemphigoid (BP) became generalized after etanercept	Type 2 diabetes	Dapsone 100 mg/day	No new lesions after 3 weeks of treatment
Lesniewska et al.[6]	35y/M	15 years	CPP[#]	Metabolic syndrome	Methotrexate 12.5-20 mg/week with topical clobetasol propionate	Complete remission after 2 months of methotrexate (20mg/week)
Loget et al.[7]	88y/F	19 years	CPP[#] and relapsing BP	-	Ustekinumab 45 mg s.c. (0,4 then every 12 weekly) with topical clobetasol (30g/day initially, tapered rapidly)	Rapid improvement in both psoriasis and BP lesions
Okahashi et al.[8]	82y/M	40 years	CPP[#]	-	Intravenous prednisolone 30 mg/day and subsequently 70 mg/day followed by IVIg 400 mg/kg per day for 5 days	Rapid suppression of new bulla formation after IVIg administration
Caca-Biljanovska et al.[9]	58y/M	>20 years	CPP[#]	-	Methotrexate 10mg/week with topical corticosteroid	No new blisters after 2 weeks. Remission of psoriasis after 4 weeks
Garrido Colmenero et al.[10]	62y/M	-	Erythrodermic psoriasis	-	Systemic corticosteroid at dose of 1 mg/kg orally	Psoriatic lesions and BP both improved after 1 month
Iskandarli et al.[11]	77y/M	20 years	Pustular psoriasis with CPP. BP lesion developed at base of pustules	-	Methotrexate 10 mg/week and potent topical corticosteroid	Pustular and bullous lesion both resolved at end of 2nd week
Ho et al.[5]	65y/M	7 years	CPP[#]	-	Topical clobetasol dipropionate	Resolution of BP lesions in 2 weeks
Onsun et al.[12]	58y/M	13 years	CPP[#]	Type 2 diabetes and hypothyroidism	Oral prednisolone and cyclosporine	Complete remission within three months
Nakayama et al.[4]	63y/M	4 years	Psoriatic onycho-pachydermo periostitis (POPP) with GPP	-	Oral prednisolone 30 mg once daily	BP and POPP improved within 3 weeks.
Guern et al.[13]	62y/M	20 years	CPP[#]	Hypertension and type 2 diabetes	Topical corticosteroid	Complete regression of the urticarial plaques and bullae within 3 weeks

Table 1: Bullous pemphigoid associated with psoriasis[3-13]

([#]CPP-Classical Plaque Psoriasis)

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