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LETTER TO THE EDITOR

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An elderly case of intractable psoriasis vulgaris coexisted with bullous pemphigoid and multiple comorbidities successfully treated with IL-17 blockade

Dear Editor,

With recent rapid aging of the population, tackling cases with multiple comorbidities are increasing. Herein we report an elderly case of intractable psoriasis vulgaris (PV) coexisted with bullous pemphigoid (BP) and multiple comorbidities. PV persisted even after the remission of BP, however, was successfully treated with IL-17 inhibitors.

A 69-year-old male with 14-year history of PV was referred to our clinic. He had been on oral cyclosporine 150 mg/day, allowing

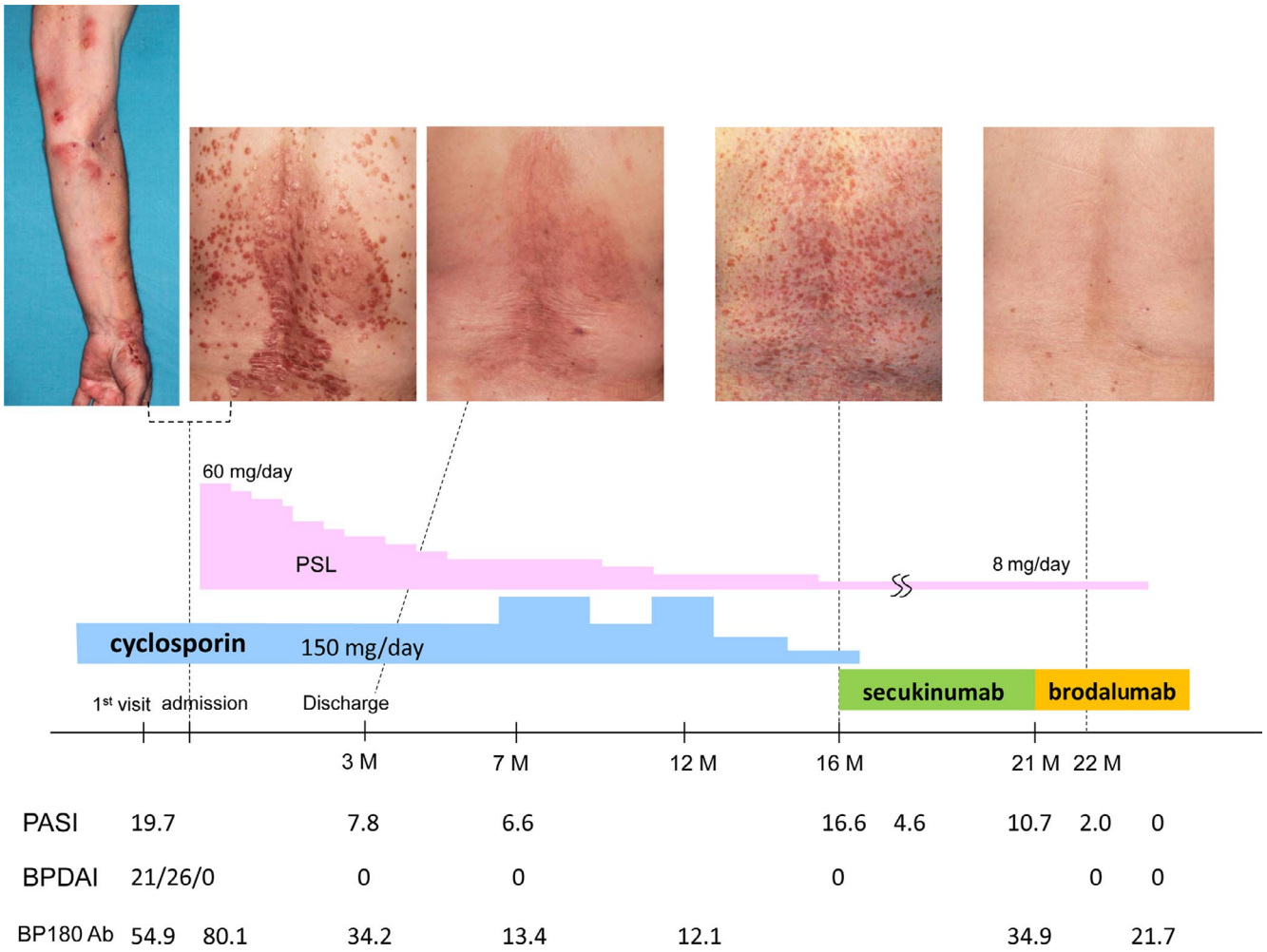

FIGURE 1 Clinical course of the present case. Psoriasis lesion relapsed as corticosteroid tapered, however, eventually regressed by the administration of brodalumab. PASI, psoriasis area severity index score; BPDAI, bullous pemphigoid disease area index. Erosions, blisters/Urticaria, Erythema/Mucosa; BP180 Ab, Anti-BP180NC16a antibody levels

imperfect control of PV. The management of PV was difficult as the patient had comorbidities such as diabetes, hyperlipidemia, hypertension, cerebral infarction, parkinsonism, and prostate cancer in remission, which was barely balanced with plenty of medications. One month prior to his visit, he started to notice blisters on the dorsal aspect of the hands, which increased and spread to the extremities. On physical examination, erythematous plaques with thick scales and tense blisters were found on the trunk and extremities (Figure 1). Anti-BP180NC16a antibody level was 54.6 (normal, <8.9 Index value by CLEIA). Histopathological investigation and direct immunofluorescence test detected typical PV and BP findings in respective lesions. The diagnoses of PV and BP were made. Because of rapid spread of blister/erosions, oral administration of prednisolone (PSL) at the dose of 60 mg/day was initiated, which resolved both PV and BP within 2 weeks. When PSL was tapered to 14 mg/day, PV recurred. Cyclosporine was increased to 200 mg/day, which was terminated because of liver dysfunction. After rounds of discussion with physicians managing comorbidities, secukinumab (300 mg/time) was eventually administered leading to PV improvement within 2 months. Five months afterward, PV relapsed. Finally, brodalumab (210 mg/time) was initiated and both PV and BP have been in remission for 7 months (Figure 1).

Recent review suggested the higher prevalence of psoriasis in BP (Odds ratio: 2.5).[1] PV preceded BP in most cases,[1] similar to our case. A Japanese retrospective study revealed that approximately 45% PV-BP patients could be controlled by systemic corticosteroids.[2] In our case, BP was well-controlled with PSL but PV recurred while PSL was tapered. Increase in the dose of PSL nor cyclosporine was denied because of potential aggravation of diabetes, hypertension, osteoporosis, and liver dysfunction. Initially, the administration of biologics for PV was not positively considered in our case to avoid unnecessary complications. Finally, secukinumab was initiated considering its safety profile, which became ineffective and was replaced with brodalumab. The latter representing a more global IL-17 inhibitor by blocking all IL-17 isoformes exhibited satisfactory efficacy and was well-tolerated without worsening comorbidities. Recent literature suggested that Th17 activation may play a role in the pathophysiology of both PV and BP.[3] In addition, an incidental immune switching from Th1 to Th2 could induce the production of the IgG autoantibodies to elicit BP in PV.[3] As TNF-α or IL-17 inhibitors may elicit BP in PV cases,[4,5] further accumulation of the cases is necessary. Yet, elderly PV-BP cases can be unmanageable. IL-17 blockade may provide a safe and efficacious strategy to manage intractable elderly PV without affecting comorbidities, including BP, and therefore can be recommended.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

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