ABSTRACT BOOK ABSTRACTS



AUTOIMMUNE BULLOUS DISEASES

AUTOREACTIVE PERIPHERAL BLOOD T HELPER (TH)1/TH2 CELL RESPONSES IN ELDERLY PATIENTS WITH PRURITIC DISORDERS AND BULLOUS PEMPHIGOID

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Introduction: Pruritus of the elderly may be linked to loss of self-tolerance against cutaneous autoantigens. Bullous pemphigoid (BP) is a prototypic autoimmune disorder of the elderly. Pruritus is a cardinal symptom of BP. Moreover, pruritus of the elderly may be considered as a pre-clinical stage of BP.

Objective: We sought to further characterize the autoreactive T cell response against BP180 in elderly patients with pruritic disorders and patients with BP in relation to IgG against BP180 and the occurrence of pruritus.

Materials and Methods: A total of 20 elderly patients with pruritic disorders, 38 patients with BP and 13 age-matched healthy controls were included. Anti-BP180 and anti-BP230 IgG autoantibodies as well as disease severity using BPDAI-Score, and severity of pruritus were assessed in both groups. Peripheral blood T cells were isolated and ex vivo stimulated with BP180 antigen, and Dsg1 or Dsg3 as control antigens. The frequencies of BP180-specific T cells producing IFN- γ (Th1), IL-5 (Th2) or IL-17A (Th17) were determined by ELISpot assay.

Results: We detected T cell responses against BP180 in patients with pruritus and BP patients. Non-BP patients showed BP180-specific Th1 cells, while BP patients showed a mixed Th2- and Th17 cell response against BP180 which was correlated with anti-BP180 IgG in the sera. In contrast, low anti-BP180 serum IgG was observed in a subset of patients with pruritus. T cell recognition of BP180 was related to pruritus severity in BP. Moreover, topical steroids led to a strong decrease of pruritus and of peripheral blood BP180-specific T cells, suggesting a critical role of autoreactive T cells in pruritus development.

Conclusions: We demonstrate T cell recognition of BP180 in elderly patients with pruritus and BP. Our findings suggest that targeting of autoreactive T cells via topical or systemic glucocorticoids has a direct impact on pruritus in BP.





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