

Dupilumab reduces frequency and severity of HSV recurrences in patients with atopic dermatitis

G. ABSIL¹, F. LIBON¹, B. DEZFOULIAN¹, A. NIKKELS¹ Department of Dermatology, University Hospital of Liège, B-4000, Belgium

Introduction Dupilumab, a monoclonal antibody against IL-4 and IL-13, is approved in moderate to severe atopic dermatitis (AD). Patients with AD are prone to viral and bacterial cutaneous infections due to the alteration of the epidermal barrier and the Th2 cytokine profile. Dupilumab regulates both processes but the incidence of HSV infections in dupilumab treated AD patients remains controversial.

Material and Methods The number and severity of HSV recurrences in 2 AD patients with an average of 12 and 6 recurrences per year, respectively, were studied for one year following initiation of dupilumab. EASI and SCORAD scores were also calculated.



Patient A: herpetic recurrence of the face

Results At one year a marked improvement was observed for patient A regarding both the number of recurrences ($n = 7$) and the severity. Patient B did not present anymore recurrences. Significant improvement of EASI (A: 64 \Rightarrow 6, B: 55 \Rightarrow 7) and SCORAD (A: 85 \Rightarrow 23, B: 63 \Rightarrow 15) were also noted.

Discussion In addition to nodal reactivation, cutaneous permissiveness is necessary for a HSV outbreak to happen. Such permissiveness is exacerbated in AD patients, particularly due to the dysfunction of the epidermal barrier and the Th2 profile. Dupilumab restores this barrier and reduces cutaneous infections by inhibition of Th2 inflammation. Despite controversial meta-analyses on the subject, our results show a significative improvement of frequency and severity of HSV recurrences.

Conclusion Simultaneous improvement of inflammation and alteration of the epidermal barrier by dupilumab in AD patients might explain the reduction of frequency and intensity of herpetic infections. Additional prospective studies are necessary.