ABSTRACT

Atopic dermatitis (AD), syn. atopic eczema, is one of the most common chronic inflammatory skin diseases of a non-infectious nature, which, although not life-threatening, has a significant negative impact on the patient's quality of life. The treatment of severe atopic dermatitis had long been very difficult due to the fact that the available treatment options were not suitable for long-term use and were associated with side effects and frequent laboratory examinations. The goal of therapy is to achieve long-term remission with minimal side effects and to improve patients' quality of life. Options of topical therapy are limited to corticosteroids and topical immunomodulators. Systemic therapy, including biological therapy, is inevitable in patients with severe atopic dermatitis.

Based on intensive research and a better understanding of the etiopathogenesis of AD, we have at our disposal not only conventional immunosuppressive systemic therapy, but also newly targeted therapy with small molecules and also targeted biological therapy with dupilumab, which has shown a remarkable reduction in clinical severity with a good safety profile.

The aim of this study was to describe the efficacy and safety of dupilumab treatment for patients with severe atopic dermatitis. Dupilumab is a fully human monoclonal antibody against the α chain of the interleukin (IL) 4 receptor, and blocks IL-4 and IL-13 signalling pathways. Long-term safe therapy is the only effective way to prevent recurrence and exacerbation of AD. We analysed all patients with severe atopic dermatitis who were treated with dupilumab between 2018 and 2022 in our centre for biologic therapy: Department of Dermatovenereology of the Královské Vinohrady University Hospital in Prague. Although the study involved only patients with severe atopic dermatitis with the mean Eczema Area and Severity Index (EASI) score of 30,7 with a mean duration of disease of 33,5 years, the results showed a rapid onset of dupilumab effect. The improvement in the EASI score by 75% compared to baseline (EASI75) was observed in 73.6% of patients after 3 months of treatment. Even after long term administration of dupilumab the treatment remained effective, when after 2 years 92,3% of patients reached the EASI75 and 61,5% of patients had EASI90. During our analysis, only 1 patient discontinued treatment due to an adverse effect.

Dupilumab was well tolerated and resulted in significant clinical improvement combined with improved quality of life.