Lengthening the time intervals between doses of dupilumab in remission atopic dermatitis.

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Dear Editor,

Atopic dermatitis (AD) is a chronic-recurrent systemic inflammatory disease characterized by a variety of cutaneous and systemic clinical features. Clinically it is characterized by the presence of a relapsing, itchy dermatitis in typical distribution, generally associated with dry skin and a tendency toward atopy. 1-2

The therapeutic management of atopic dermatitis has completely changed with the arrival of dupixent, the first biological therapy approved for atopic dermatitis. The safety and effectiveness of dupilumab in AD have been repeatedly demonstrated in clinical trials and real-life studies. 3-5

However, it is unclear the use of the drug after complete clearance. In fact, the technical data sheet does not report either a possible interruption of the therapy or a variation in the interval between doses.

Driven by numerous evidences on the possible lengthening of the interval between doses after the clearance of the disease, related to other biological drugs used for other inflammatory diseases, 6-7 we decided to do it with our patients on dupilumab therapy.

In the last year, in 12 adult patients who had not presented skin manifestations or itchy symptoms for at least six months, we decided, in agreement with the patient, to extend the interval between doses to 4 weeks. To avoid a possible sudden flare-up, we have provided the patient with an email contact for any communications relating to the progress of the disease, and we also confirmed the clinical checks every 16 weeks.

The selected patients were 7 females and 5 males with a mean age of 46 years, only 2 male patients had atopic commodities, in particular rhino-conjunctivitis. None of them practiced antihistamine or corticosteroid therapy. Obviously, all patients had an EASI and NRS score equal to 0.

To date, after 48 weeks, all 12 patients continued to administer dupilumab 300 mg every 4 weeks and have reported no clinical flare-ups or onset of itching symptoms; during the whole period, no one needed to restore the two-week interval.

Lengthening treatment intervals of dupilumab in DA patients who reached and maintained complete clearance is not only safe, effective, and cost-effective, but also facilitates patient compliance. The too-small sample certainly raises many doubts, but there is no doubt that starting to think about "maintenance" therapy is a necessity as well as a moral obligation.

Further investigations are warranted to maximize the strategy's therapeutic effects and to reduce cost-effectiveness without losing therapeutic effectiveness.

References

1. Salimian J, Salehi Z, Ahmadi A, et al. Atopic dermatitis: molecular, cellular, and clinical aspects. Mol Biol Rep. 2022; 49: 3333-3348.

2. Davis DMR, Drucker AM, Alikhan A, et al. American Academy of Dermatology Guidelines: Awareness of comorbidities associated with atopic dermatitis in adults. J Am Acad Dermatol. 2022; 86: 1335-1336.e18.

3. Nettis E, Fabbrocini G, Ortoncelli M, et al. Long-term effectiveness of dupilumab up to 52 weeks in atopic dermatitis in 253 adult patients. Br J Dermatol. 2021;184: 561-563.

4. Fargnoli MC, Esposito M, Ferrucci S, et al. Real-life experience on effectiveness and safety of dupilumab in adult patients with moderate-to-severe atopic dermatitis. J Dermatolog Treat. 2021; 32: 507-513.

5. Nettis E, Ferrucci SM, Pellacani G, et al. Dupilumab in atopic dermatitis: predictors of treatment outcome and time to response. J Eur Acad Dermatol Venereol. 2021; 35: e896-e898.

6. Uhrenholt L, Schlemmer A, Hauge EM, et al. Dosage reduction and discontinuation of biological disease-modifying antirheumatic drugs in patients with rheumatoid arthritis, psoriatic arthritis and axial spondyloarthritis: protocol for a pragmatic, randomised controlled trial (the BIOlogical Dose OPTimisation (BIODOPT) trial). BMJ Open. 2019; 9: e028517.

7. Lorenzin M, Ortolan A, de Hooge M, et al. Lengthening the time intervals between doses of biological agents in psoriatic arthritis patients: A single-center retrospective study. Int J Immunopathol Pharmacol. 2015; 28: 479-87.