Dupilumab, a fully human monoclonal antibody that targets IL-4 receptor-\(\alpha\) and inhibits signaling of IL-4 and IL-13, has recently been approved as first-line treatment for moderate-to-severe adult atopic dermatitis (AD).\(^1\) This biological therapy was associated with an increased rate of conjunctivitis in a clinical trial.\(^1,2\)

A 55-year-old Caucasian man with a long-standing history of AD since childhood started dupilumab treatments after failing to respond to several topical therapies, cyclosporine, and omalizumab. Significant comorbidities included a 32-year history of a mild perennial allergic rhinoconjunctivitis and asthma. His baseline Eczema Area and Severity Index (EASI) score was 25.1, with an Investigator’s Static Global Assessment (IGA) of 4 and a Dermatology Life Quality Index (DLQI) score of 15. Dupilumab was administered with a 600-mg loading dose followed by 300-mg dose every 2 weeks for his symptoms. At follow-up, 4 weeks later, conjunctivitis, blepharitis, and dry eyes were observed. The patient was treated with artificial tears and 0.1% topical flurometholone drops, 3 times a day in both eyes. Halfway through the second month of dupilumab treatment, the patient noticed progressive bilateral ectropion in addition to upper lid shortening. At revaluation after 8 weeks, the patient presented an EASI score of 12.7, an IGA of 3, a DLQI score of 5, and a peak pruritus Numerical Rating Scale improvement of 4 points. At this time (Figure 1), the patient complained of itching, burning, tearing, and sandy feeling under the eyelids, whereas his best corrected visual acuity was 20/20 in each eye. Slit lamp examination revealed swollen eyelids, severe cicatricial ectropion of both lower eyelids, with severe punctate stenosis and displacement, hyperemic eyelid margins, and a significant conjunctival injection that extended beyond the interpalpebral zone of both eyes.

A treatment with 50 mg of oral prednisolone and 0.1% topical cyclosporine twice a day was administered for 60 consecutive days. Two months after discontinuing dupilumab (Figure 2), the patient’s symptoms had substantially improved and examination showed a significant decrease in conjunctival injection, eyelid margin hyperemia, and cicatricial ectropion, with lower eyelids reverted to the pre-dupilumab position.

The efficacy and safety of subcutaneous dupilumab for the treatment of AD has been established in several studies.\(^1-3\) However, this monoclonal antibody appears to induce or exacerbate conjunctivitis.\(^4\) Conjunctivitis was more frequently observed in only AD trial patients, but not in asthma or nasal polyposis trials.\(^2\) The cause of dupilumab-induced conjunctivitis

**FIGURE 1.** Severe cicatricial ectropion and hyperemic eyelid margins.

**FIGURE 2.** Decrease of cicatricial ectropion and eyelid margin hyperemia, with lower eyelids reverted to the pre-dupilumab position.
is still unclear. In our patient, conjunctivitis was presumably due to exposure resulting from ectropion and to dupilumab treatment. Only Barnes et al. previously reported bilateral cicatricial ectropion associated with dupilumab during a phase III clinical trial. However, unlike that case report, our patient had a history of allergic perennial conjunctivitis. Nevertheless, it is possible that an increased eosinophil count after drug administration, which plays a part in the development of allergic eye disorders, could increase the risk of dupilumab-induced conjunctivitis.4-6

To our knowledge, this case is the first report of cicatricial ectropion in a real-life setting, developing in a patient with AD during dupilumab treatment. We recommend an early ophthalmology referral in cases of eye complications.

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