

## CORRESPONDENCE



# Comment on: 'Dupilumab-associated ocular surface disease: presentation, management and long-term sequelae'

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Eye (2022) 36:1515; <https://doi.org/10.1038/s41433-021-01779-5>

**To the Editor:**

I read the article by Popiela et al. [1], who reported the features of ocular surface disease in patients with atopic dermatitis (AD) treated with dupilumab. The rate of dupilumab-associated ocular surface disease was 32%. All patients had improvement in their AD severity, and only one out of 28 patients discontinued dupilumab due to ocular side effects. I have some comments about their study.

First, Touhouche et al. [2] conducted a prospective study to assess the potential predisposing factors for dupilumab-induced ocular adverse events (OAEs) in adult 42 patients with AD. Odds ratios of dry eye disease symptoms, eyelid eczema, history of food allergy, and IgE serum level >1000 kU/L for dupilumab-induced OAEs significantly increased. Symptoms and biomarker were both selected as markers of dupilumab-induced OAEs. Caution should be paid to the contents of OAEs.

Second, Utine et al. [3] reviewed that there was an increased prevalence of conjunctivitis in patients with dupilumab use. As majorities of dupilumab-related conjunctivitis are considered as mild-to-moderate side effects, an early detection of conjunctivitis might have not been considered urgent and important. But useful biomarkers should be explored for early detection of severe conjunctivitis. On this point, Touhouche et al. [2] reported that increased IgE serum level at baseline contributed to subsequent OAEs. Patients with AD presents increased IgE serum level in general, and dupilumab use might be considered for patients with severe AD. Taking together, additional biomarker should be considered to improve screening ability.

Regarding laboratory screening method, Kimura et al. [4] reported a case study of dupilumab-related conjunctivitis by monitoring serum IgE and the absolute number of eosinophils. Serum Ig E decreased markedly at 10 weeks after dupilumab administration and then decreased gradually after dupilumab administration. In contrast, the absolute number of eosinophils increased markedly at 10 weeks after dupilumab administration. After dupilumab administration, the absolute number of eosinophils values was high at 24 weeks, and returned to baseline at 44 weeks. Kimura et al. [4] suspected dupilumab-related eosinophilia as one of the causes of conjunctivitis [5]. Further

prospective studies, including the absolute number of eosinophils, are needed to specify the association.

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**AUTHOR CONTRIBUTIONS**

The author planned the study, wrote a draft and revised it.

**COMPETING INTERESTS**

The author declares no competing interests.

**ADDITIONAL INFORMATION**

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