The ROYAL COLLEGE of OPHTHALMOLOGISTS

CORRESPONDENCE

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

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TO THE EDITOR:

Thank you for the additional information, relating to the risk factors for the development of dupilumab ocular side effects, published by Kawada. Answering to your comments; at the time of writing our article, only more severe baseline atopic dermatitis (AD) and the history of prior atopic keratoconjunctivitis were published as risk factors for the development of dupilumab ocular side effects [1, 2]. In our study we did not explore IgE and eosinophilia levels. However, eosinophilia was discussed as one of the possible mechanisms behind dupilumab-associated ocular side effects. The exact aetiology for this phenomenon remains unconfirmed and is likely linked to the mode of action of dupilumab in susceptible individuals. Increased Demodex infestation, decrease in goblet cells and heightened OX40 ligand activity, proposed as other reasons for dupilumab ocular side effects, can be partially explained by IL-4 and IL-13 blocking [1, 3].

We agree that several immunological and genetic factors contribute to the ocular adverse reactions with dupilumab usage. Touhouche et al. reports that patients with pre-existing dry eye, eye lid eczema, food intolerance, and higher pre-therapy IgE levels are more prone to dupilumab ocular side effects [3]. We disagree that early input from an ophthalmologist is not important. Ocular surface disease can lead to significant morbidity and affects up to 64% of AD patients. Some reports suggest that treatment of pre-existing ocular surface disease in AD patients improves rates of dupilumab-associated ocular side effects [1, 2, 4]. The development of conjunctivitis severe enough to necessitate cessation of dupilumab has been reported in 1–4% of AD patients [5]. This proves particularly distressing for those patients that respond well to the drug for their AD but develop severe ocular side effects and need to discontinue dupilumab on this account. Our data shows that large percentage of patients with dupilumab-associated ocular side effects need treatment of their ocular disease for a prolonged period of time, necessitating both early and ongoing ophthalmic input of AD patients on dupilumab.

Further prospective studies are needed to determine patient specific risk factors for the development severe dupilumab-associated ocular surface disease.

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AUTHOR CONTRIBUTIONS

All authors reviewed the results and approved the final version of the paper.

COMPETING INTERESTS

The authors declare no competing interests.

ADDITIONAL INFORMATION

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