Comment: Allergen-specific exposure associated with high immunoglobulin E and eye rubbing predisposes to progression of keratoconus

I read with great interest the article, “Allergen-specific exposure associated with high immunoglobulin E (IgE) and eye rubbing predisposes to progression of keratoconus” by Shetty et al. The authors have commendably investigated the role of ocular allergy in causing keratectasia progression. This contributes well to the present literature on the association of ocular allergy and keratoconus. However, I wish to draw the attention of readers and authors to a few points.

Atopic ocular diseases (AODs) form a spectrum of immune-inflammatory responses characterized by persistent mast cell, eosinophil, and lymphocyte activation that result in pathologic changes, and include seasonal allergic conjunctivitis, perennial allergic conjunctivitis, atopic keratoconjunctivitis (AKC), and vernal keratoconjunctivitis (VKC).

Other causes of clinical improvement and cessation of rubbing in the discussed cases such as patient’s conscious avoidance of eye rubbing after clinician’s advice and frequent visits to clinic (modified health behavior), temporal association of seasonal improvement (well known in VKC) with avoidance of allergens exposure and response to short course of antihistaminic drugs per se should be borne in mind.

VKC remains an important differential diagnosis and cases could have been alternatively managed as refractory VKC with systemic immunomodulators. A clinical diagnosis could obviate the need for IgE testing, cost limitation of which has been agreed upon by the authors. In addition, skin patch test has been reported to have only low to moderate predictive value in cases of atopy, with not much described on its diagnostic role in AOD.

Furthermore, if AKC is strongly suspected, prompt immunology referral, more complete family history, and further investigations for systemic evidence of atopy (e.g., respiratory allergies, atopic dermatitis) would be helpful since gastrointestinal symptoms (in case 1 having sunflower oil allergy) and dermatological symptoms (in case 2 having allergy to woolen clothes) are well expected due to heightened immunological response (raised serum IgE). Their absence may lead us to exclude AKC. In fact, an IgE level test could have been repeated to document atopy to the allergens, as advice on changing patient’s lifestyle to avoid certain exposures should be given by the clinician only after obtaining a convincing body of evidence.

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Conflicts of interest
There are no conflicts of interest.

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forms of allergic conjunctivitis should be tested as the causal skin prick test. It states that treatment-resistant cases of various and Global Allergy and Asthma European Network paper on children, American allergy body paper on allergy diagnosis, and in use as stated by position paper from European Academy the predictive value of skin patch test, as suggested in the comment. Despite the concerns regarding with gastrointestinal or dermatological symptoms in the cases specialist. It should also be noted that the cases did not present referral was sought, and skin patch test was performed by the E (IgE) in the absence of other systemic symptoms provided a of information regarding the raised serum immunoglobulin followed to manage the disease. In the current cases, the benefit immunomodulation is certainly a strategy to be immunomodulation. In the absence of alleviation of symptoms, ocular symptoms did subside without the use of systemic systemic immunomodulation is suggested in severe or blinding stages absence of other systemic symptoms. because it does come with its side effects and also due to the allergens exposure. Systemic immunomodulation was delayed point regarding the use of systemic immunomodulators in avoidance of allergens exposure. Gupta Y seasonal improvement and antihistaminic, in addition to possible causes of clinical improvement and cessation of eye diseases and keratoconus. Especially, about the other valuable aspects to the case reports which discuss allergic We are thankful to Gupta Y