Letters to the Editor

Use of modified international council of ophthalmology-ophthalmology surgical competency assessment rubric (ICO-OSCAR) for phacoemulsification-wet lab training in residency program

I am writing this letter to discuss a very important issue that we face in Ophthalmology training in the current day scenario in our country. India is home to a quarter of the blind population of the world, but unfortunately, the number of trained ophthalmologists is lagging behind the current need.[1][2] Our country needs 25,000–30,000 ophthalmologists till 2020, which means adding 300 training slots per year.[3] This needs a major revamp of our residency system as the existing system is found to be inadequate in its current form.[3]

Most of the residency programs are not focusing much on the surgical training of the residents. The International Council of Ophthalmology designed its Ophthalmology Surgical Competency Assessment Rubrics (ICO-OSCAR) to facilitate assessment and teaching of surgical skill.[4] However, these are used during surgical training and cannot be used before that, during wet lab. We believe that wet lab training should be made mandatory for all residents before surgical training on actual eyes. To the best of our knowledge, there is no assessment tool currently being used for wet lab training. We propose the ICO-OSCAR tools be used for wet lab training and be made part of the teaching curriculum.

The ICO-OSCAR is used to evaluate surgeries,[4][5] but we have modified it to be used in wet lab for Phacoemulsification training. The modified OSCAR can be found at https://drive.google.com/file/d/0B_sdV‑PMylzyMm5fZXRIQVRGbzQ/view.

We ran a pilot study in one of the Educational Institutes in Trujillo, Peru, last year using this modified OSCAR tool. This study was done on an Orbis International Flying Eye Hospital program, where 12 3rd-year residents were trained in phacoemulsification, in the wet lab, by a certified trainer from the United States. The 3rd-year residents were already doing phacoemulsification and had done a minimum of 20 phacoemulsification surgeries before this wet lab training. The trainer was a long-term volunteer faculty with Orbis International and had done several instruction courses on Orbis programs and is the residency director of the ophthalmology-training program at her institute. The training exercise was held over 5 days. 1st day, the residents were trained in wound construction, 2nd day on capsulorrhexis and hydroprocedures, 3rd and 4th day on phacoemulsification technique, and 5th day on intraocular lens insertion and wound closure. The training also had 11 didactic lectures.

Participating ophthalmologists were asked to complete an evaluation sheet (modified OSCAR) before starting the wet lab. The evaluation sheet had 22 questions to assess areas covered during training under various categories. Trainees completed the same evaluation sheet after the wet lab as well. A similar evaluation sheet was completed by the trainer for each trainee, and discussion was held at the end of the day between the trainer and the trainee evaluating the day’s session.

We found that the trainer’s scores did not match that of the trainee’s self-assessment scores for most of the task. The trainer’s and trainee’s scores matched more closely in the following skills – instrument handling ($P = 0.9$), wound construction ($P = 0.655$), and phacodynamics ($P = 0.334$). There was discrepancy between both scores in capsulorrhexis ($P = 0.003$), hydrodissection ($P = 0.003$), and irrigation/aspiration ($P = 0.003$).

From this exercise, we learned that modified OSCAR offers a reliable way to objectively assess the surgical skills acquired during wet lab training. We saw that trainees tend to overestimate their skills. The tool is useful to develop self-awareness among trainees and to identify gaps, lead active continuous professional development plan, and eventually improve their surgical skills. Such modified OSCAR tools can be developed for other surgical wet labs also, and we should find a way to integrate this in our residency curriculum.

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Conflicts of interest
There are no conflicts of interest.

Javed Hussain Farooqui, Antonio Jaramillo¹, Mansi Sharma², Ahmed Gomaa³,⁴

Department of Ophthalmology, Dr. Shroff’s Charity Eye Hospital, New Delhi, ²Department of Vitreo-Retina, Uveitis and R.O.P., Postgraduate Institute of Medical Education and Research, Chandigarh, India, ³Department of Ophthalmology, Flying Eye Hospital, New York, ⁴University of Nebraska Medical Center, Truhlsen Eye Institute, Nebraska, USA, ⁵Department of Ophthalmology, Cairo University, Cairo, Egypt

Correspondence to: Dr. Javed Hussain Farooqui, Dr. Shroff’s Charity Eye Hospital, 5027, Kedarnath Marg, Daryaganj, New Delhi - 110 002, India. E-mail: jhfarooqui@gmail.com

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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. [1]

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 [2] 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. [4] 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 [5] 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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Yogita Gupta
Dr. Rajendra Prasad Center of Ophthalmic Sciences, All India Institute of Medical Sciences, New Delhi, India
Correspondence to: Dr. Yogita Gupta, Dr. Rajendra Prasad Centre for Ophthalmic Sciences, All India Institute of Medical Sciences, Ansari Nagar, New Delhi ‑ 110 029, India.
E‑mail: yogitagupta30@gmail.com

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