# Comments on: Reworking protocols of ophthalmic resident surgical training in the COVID-19 era – Experiences of a tertiary care institute in Northern India

#### Dear Editor,

We have read the article by Gupta *et al.*,<sup>[1]</sup> "Reworking Protocols of Ophthalmic Resident Surgical Training in the COVID-19 Era – Experiences of a Tertiary-Care Institute in Northern India." We want to congratulate the authors for describing the much-needed protocols for ophthalmology residency surgical training program during these challenging times. We, like the authors of the mentioned institute, have also devised a surgical training protocol at our institute. We wish to share our short experience of an ophthalmic residency surgical training protocol that is underway at a tertiary-care institute in South India.

During and due to the coronavirus disease 2019 (COVID-19) pandemic, our surgical numbers had dropped drastically, and it had the most deleterious effect on the residents who were getting very minimal chances to operate.<sup>[2]</sup> The stress and anxiety levels were at a paramount high due to this unprecedented condition. To overcome the situation, we have formulated a structured surgical training program, including wet lab training and surgical simulator training for the residents. We have divided the residents into five teams, each consisting of four residents; among them, three are first-, second-, or third-semester residents and one is from either fourth or fifth semester. The sixth-semester students have been excluded from the scheduled training program, although they were instructed to do the simulator and wet lab training in their due time. Fewer numbers of residents were kept in the training program to maintain the COVID-19-appropriate behavior and to maintain the clinical duties of the department. One dedicated senior resident and a faculty were also posted with the residents to observe them and teach them.

Apart from the structured training course in wet lab and simulator training mentioned by Gupta et al.[1] we have prepared a curriculum for the junior residents to practice the basic steps of phacoemulsification such as capsulorhexis and hydrodissection. We divided the residents into two groups: the wet lab group and the simulator group. Residents in the wet lab group practiced the steps of phacoemulsification such as clear corneal incision, capsulorhexis, hydrodissection, trenching, and intraocular lens implantation in freshly collected goat's eye or discarded cadaveric human eyes.[3,4] In the simulator group, the residents were asked to complete four training modules of cataract surgery starting from CAT-A: Introduction, CAT-B: Beginner, CAT-C: Intermediate, and CAT-D: Advanced course. As many of the residents were very much new to the ophthalmic world, we did not allot them full cataract surgery, but we encouraged them to perform the initial steps of the surgery in the operation theater under the supervision of a senior surgeon. Based on the ICO-OSCAR (International Council of Ophthalmology's "Ophthalmology Surgical Competency Assessment Rubrics") scoring system,<sup>[5]</sup> points were credited on the performance of the residents in the phacoemulsification steps such as incision, capsulorhexis, hydrodissection, and nuclear management. We have created a separate Google Sheet (Microsoft 2020, USA) for each group, and the senior residents were instructed to fill the Google Sheet on the same day of the surgery. All the faculty members had access to the sheet so that everyone can keep an eye on the resident's performance. After their initial experience of five to 10 small-incision cataract surgeries, the residents started performing phacoemulsification under supervision. Our initial reports suggest that the residents have been benefited immensely from the structured curriculum, although the residents belonging to the simulator group showed better results than the wet lab group.

The reduced surgical numbers during this downtime have a great impact on resident training. The structured wet lab training and surgical simulator training are the only way forward for the ophthalmology residency program in the days to come. We are also considering the possibility of creating an app with the help of a software developer to keep a better track of the resident's surgical training for the future.

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#### **Conflicts of interest**

There are no conflicts of interest.

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