

Commentary: Teleophthalmology: Opportunities and challenges

The ongoing COVID-19 pandemic has transformed our lives in many ways. Taking a cue from the reported efficacy of Chinese lockdown measures in slowing down the spread of infection, most countries across the world have imposed restrictions on the activities of their residents.^[1] The consequences of the pandemic and the mitigation measures on routine healthcare services are yet to be fully understood, but are likely to be profound. In a recent survey of Indian ophthalmologists, nearly three-fourths (72.5%) reported that they had stopped examining patients during the lockdown, and a slightly higher proportion (77.5%) had switched over to some form of telemedicine for assisting patients.^[2] In this context, a synopsis of the causes of acute ocular pain along with a description of the clinical findings in each entity from the perspective of teleophthalmology is timely and useful.^[3] The authors have managed to compile in a concise description, information on causes of acute ocular pain that is usually spread over multiple chapters in a standard textbook. The accompanying tables and flowcharts would be useful additions to any ophthalmology service looking to use teleophthalmology for triaging acute ocular pain.

It is unsurprising that a dramatic trigger event such as a pandemic has led to abrupt behavioral changes such as the widespread use of telemedicine by ophthalmologists. Telemedicine as a concept has been traced back to ancient societies. Even the modern applications of telemedicine are more than a century old, when William Einthoven used a long-distance transfer of electrocardiograms in 1905.^[4] Despite this and the exponential improvement in the quality of imaging and connectivity in recent years, adoption of telemedicine by ophthalmologists has been limited.^[5]

As ophthalmologists, we rely on specialized equipment such as slit lamp microscopes, tonometers, condensing lenses, and indirect ophthalmoscopes to carry out a detailed examination of the eye. In addition, diagnostic devices help us assess and document structural and functional details ranging from the tear film to the choroid, and everything in between. To substitute this wealth of information with a smartphone image of the eye is unthinkable. The use of purpose-built equipment in community settings by allied health personnel to capture and relay images to experts has overcome some of these limitations, but only for specific indications such as screening for retinopathy of prematurity, age-related macular degeneration, and diabetic retinopathy.^[6,7] Such applications constitute valid, replicable, and robust uses of teleophthalmology.

In contrast, attempts to substitute conventional doctor-patient interactions in the clinic to any substantial extent with long-distance consults are fraught with problems. The idea of using images and videos as a basis for diagnosis and treatment decisions sounds appealing but is difficult to implement meaningfully. Barring a minuscule number of conditions such as external hordeolum or blepharitis, it is extremely difficult for an ophthalmologist to help a patient without detailed examination of the eye. What appears to be conjunctivitis on a smartphone image might easily turn out to be scleritis, uveitis, or any other cause of acute red eye. In India, guidelines have been recently released for the practice of telemedicine by registered medical practitioners. This ought to be interpreted as an enabling measure that encourages doctors to help patients in difficult times. The guidelines specify that a telemedicine consult entails the same professional accountability as the traditional in-person consult, including implications for professional misconduct. In addition, protocols for patient identification, informed consent, data privacy, confidentiality, documentation, triaging, billing, and prescription of specific groups of drugs have also been described.^[8] Given the limited utility of a teleconsult for both the doctor and the patient, the significant outlay of time, energy, and money involved in providing teleophthalmology services may be justified only in exceptional circumstances such as the ongoing pandemic.

In conclusion, teleophthalmology in the context of community screening for specific eye disorders carried out by allied health professionals using appropriate equipment is a shining example of healthcare access being expanded by advancements in technology. For individual patients who may not be able to travel for in-person consults, teleophthalmology may be better than no consultation at all, and serves as a reasonable form of triage. Practitioners should know that this does not justify a compromise in the quality of care, and there is no relaxation provided in terms of professional accountability. In all other circumstances, the standard of care management entails detailed examination and appropriate use of diagnostic tools, which can be provided only with a conventional doctor-patient encounter in the clinic, albeit with appropriate safeguards. In times when we are frequently exhorted to embrace the “new normal,” we would do well to remember that the “old normal” has served us well for many generations and deserves reasonable consideration before being discarded.

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