

Covid And Ophthalmology

By

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Volume II

Perspectives - A Peer-Reviewed, Bilingual, Interdisciplinary E-Journal

Janki Devi Memorial College

University of Delhi

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Lives have been lost, health has been permanently affected, brain fogging and a host of other problems have seeped us into gloom since the pandemic engulfed us all. Eye health is one sector, which has, and continues to harm, patients as well as health care workers. It is doubtless that fear, loss of employment, migration to villages, health of doctors and health care workers, and personal tragedies have together caused untold suffering to all. Individual tragedies of loss of sight in both eyes, though rare, are now part and parcel of the lives of the affected individuals and cannot be relegated to mere statistics. An attempt has been made to give a bird's eye view of how and why the pandemic has affected ophthalmology.

For the student used to running about in sunshine, now caged in a room with air conditioners day after day, glued to the television screen, mobile or other visual devices for education and entertainment, eye health has seen a steep rise in myopia development or increase in myopia, dry eyes and convergence insufficiency. This has increased the burden of myopia related complications in eyes and the long-term effects will be encountered many years later in the lifetime of these growing children. What used to be a problem of those involved in the information and technology sector, those working long hours on various visual terminals, and the older age group individuals, especially, post -menopausal women, is now appearing in children in the form of burning, pain, dryness, and watering due to dry eyes. Many ocular lubricants are used to treat this condition, some of which contain Benzalkonium and other preservatives, which cause ocular surface problems. The long-term effects of these medicines, if not used discriminately, will be known much later.

Examination of patients of all ages is a very difficult proposition for the masked doctor and patient due to fogging of the lenses used to examine the posterior segment of the eyes, causing longer examination times and requiring more patience on the part of both, the doctor as well as the patient. The number of people wanting refractive surgery has risen due to effects of fogging of spectacles during work with masks on. The timing and costs of surgery have also been impacted due to testing of RTPCR before surgery.

Corneal diseases, which should have been treated early, and severe corneal opacities or perforations prevented, have risen sharply as patients have been fearful of venturing out of home to seek good eye care, or have been taking help of non-ophthalmologists or quacks for treatment. Their treatment has been either incorrect or inadequate. By the time the patients have reached a proper facility for eye care, the damage has been complete and at times, permanent. Corneal transplantation has taken a great blow with unavailability of this tissue for grafting and saving vision. Obtaining cadaveric corneal tissue was completely impossible during this time. Only in the last few months, cadaveric corneal tissues are being obtained. As such, there was a huge deficit of corneal tissue earlier in our country, for transplantation and the number has only seen a significant increase. This will and has increased the numbers of corneal blind.

Glaucoma, the biggest cause of irreversible blindness in the world, has been affected by the patients' inability to get their regular medication due to unavailability, avail regular six monthly or annual follow ups and investigations to ensure correct intraocular pressure as per their ocular status. Acute angle closure glaucoma attacks in susceptible individuals have also seen a sharp rise and patient losing sight or progressing to absolute glaucoma has been found in increasing numbers. Delayed surgery for these patients has robbed them off with what little vision they

had. Many children suffering from congenital glaucoma have not been operated upon timely or received visual rehabilitation causing permanent visual loss.

A bugbear of increased longevity is age related macular degeneration resulting in macular swelling. This condition needs timely injections by intravitreal AntiVEGFs, but patients, for varied reasons, have not been able to avail the injections. This has caused scar formation in the maculae and permanent visual loss. Retinal detachment, and surgery required almost as an emergency in some cases, has not been done due to patient and health care factors. Either the patient has chosen not to seek treatment or surgical facilities were shut due to lockdown or both the patient and doctor had been affected by COVID.

The commonest ocular condition known to Indians as *Safed Motia*, or cataract has also suffered a setback. Cataracts have become rock hard, have become hypermature, or have developed complications like phacomorphic glaucoma, phacolytic glaucoma and so on. Many who would have got away in normal times by a straightforward uneventful cataract surgery, have required different methods to prevent complications of such cataracts.

Diabetics have been affected negatively by COVID in ophthalmology. Due to patient inability to get proper blood sugar control, diabetic retinopathy has increased by leaps and bounds resulting in proliferative diabetic retinopathy and resultant neovascular glaucoma. This is one of the worst forms of glaucoma and causes great visual loss in affected individuals even in the best of circumstances. Even uncontrolled hypertension has resulted in greater numbers of Central Retinal Vein Occlusions with neovascular glaucomas.

Help for those suffering from various ocular tumours, malignant or otherwise, has also been delayed.

COVID has affected health care all over. It is time for all of us to mask ourselves, take all precautions and seek help at the earliest. It is doubly important to offer financial support to those not being able to afford help. There are many centres of excellence where ocular care is given at minimal costs and everyone is ready to help the needy in these difficult times.

About the author:

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Dr Patyal has served as the Assistant Chief of Integrated Defence Staff (Medical) at Army HQ Delhi, Head of Dept. Ophthalmology at Army Hospital (Research & Referral) Delhi, Head of Dept. Ophthalmology at Army Base Hospital Delhi Cantt, Professor at Armed Forces Medical College at Pune, and is the only lady officer to have commanded the world's highest General Hospital at Leh (11400 ft), where she was instrumental in establishing telemedicine nodes in high altitude (Siachen) to help soldiers stationed in the highest battleground in the world. She is a highly decorated officer, having received the Vishisht Seva Medal in 2016, Sena Medal (Distinguished) in 2014, Chief of Army Staff Commendation in 2004 and 2011, among other prestigious awards.

Dr Patyal has 57 publications with 143 citations in peer reviewed journals in international and national journals to her credit and has written chapters in books and has edited a book "Resolving dilemmas in Perimetry". She is recognized as a supervisor to guide post-graduate degree and diploma students by Delhi University, UG & PG teacher and examiner by the Maharashtra University of Health Sciences and Guru Gobind University, has also served as MCI Inspector for MBBS, Inspector for DNB, National faculty for Glaucoma, and Faculty in Delhi Ophthalmological Society Postgraduate Teaching Program. She is a reviewer for the Medical Journal of Armed Forces of India (MJAFI) Indexed Journal, Reviewer for J Clin Ophthalmology Res, Reviewer Delhi Journal of Ophthalmology and Cureus Medical Publishing online journal.