

## Guest Editorial

### Corona virus infectious disease (COVID-19) pandemic and eye health care services

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World Health Organization (WHO) first reported on the Corona virus (COVID-19) outbreak in Wuhan province of China on 31<sup>st</sup> December 2019. It was declared a pandemic on 11<sup>th</sup> March 2020 (WHO media brief). As of 13<sup>th</sup> May 2020, there are more than 4.23 million cases of confirmed COVID-19 and 29,0000 COVID-19 related deaths in 210 countries. USA (83,019), Spain (26,920), Italy (30,911), France (26,991), UK (32,692) experienced high mortality (Worldometer & WHO COVID-19 dashboard; on 13/5/2020). The risk of fatal complications is higher in populations with comorbidities like diabetes, hypertension, kidney diseases, and obstructive lung diseases. Proper care of these diseases to avoid serious complications is crucial to reduce mortality.

This pandemic has resulted in unique healthcare challenges for healthcare providers, as well as for populations across the globe.

Health staff providers are at a higher risk of getting infected with COVID-19 (Koh D, 2020). In the United Kingdom (100 + healthcare providers), Italy (60 physicians), and many other countries have reported deaths of health care providers-call in the treatment of individuals infected by COVID-19 (Yoshida, I.2020). It is therefore crucial that healthcare providers protect themselves using personal protective equipment (PPE) in addition to other public health preventive measures described below.

The pandemic has resulted in an unprecedented increase in workload and shortage of PPE for health staff in the developed world. Because of the shortage of PPE in several countries across the globe, guidelines for their rational use of PPE have been issued. (WHO, 2020). This unexpected shortage even in countries with good health-related infrastructure makes the situation somewhat alarming for developing nations where the impact of COVID-19 in African and Asian countries with dense population and limited health resources could be disastrous (Nkengasong JN, & Mankoula W, 2020).

Several simple preventive measures have been suggested to mitigate the effects of this pandemic. The preventive measures like hand hygiene, social distancing, and isolating positive tested cases have been useful in flattening the infection curve and overload of severe cases for hospital-based care (Wu Z et al. 2020). Unfortunately, developing a vaccine against this infectious disease will take time. The medicines to treat COVID-19 and pulmonary complications are still debatable and further guidelines to their use await the results of randomized clinical trials (Hopman et al, 2020). Thus, improving the immunity of a person and providing active medical supportive care are the



only strategies to manage COVID-19 patients (Casella M et al, 2020). Yoga and Ayurvedic treatment have shown assistance in boosting the immunity (Tillu G et al,2020).

Rubella infection was first brought to the notice of public health in 1941 by an Australian ophthalmologist (Lancaster, 2011). Once again, eye care professionals played an important role in public health. This time a Chinese ophthalmologist; Li Wenliang working at Wuhan Central Hospital of China warned his colleagues in late 2019 about an illness that was like severe acute respiratory syndrome (SARS) which was subsequently named as COVID-19.

Ophthalmic services in this pandemic are considered a less critical component of health service. Hence, it has been recommended that routine eye visits and elective surgery be delayed and only care be provided for eye emergencies (AAO, 2020). During this pandemic, telemedicine has become an accepted mode of providing medical treatment and consultation to ophthalmic patients with chronic or minor new ailments (Nair AG et al,2020). Providing routine ophthalmic care to patients can pose a risk of COVID-19 transmission to the service providers by asymptomatic COVID-19 patients. The use of mask, protective goggles, gloves, use of clear shield for slit-lamp biomicroscope, increasing the distance between patients in waiting areas, frequent cleaning of surfaces and equipment are recommended in eye clinics providing care to eye emergencies and such measures are likely to be followed even after lockdowns and curfews are lifted. Most of the health facilities now screen patients and their attendants for early symptoms like fever, cough, and difficulty in breathing. These precautions should be followed in all eye clinics and hospitals to protect eye health care staff and to prevent further spread and infection (Lai TH et al,2020). Wu et al. reported that 32% of corona patients had red eyes. The presence of the virus in tears is still debatable. However,

utmost care should be taken while examining eye patients (Wu P et al,2020).

Contact lenses could transfer infection from hands to eyes and face. Therefore, contact lens use must be with strict hand hygiene during this pandemic (Jones L et al,2020) Furthermore, switching from CL to spectacles should be advised during this period.

The lack of surgery during the pandemic can be a source of anxiety to ophthalmic surgeons who might fear losing knowledge and surgical skills. An array of web-based training is available to provide both theoretical and practical knowledge in various subspecialties in ophthalmology (Mak ST et al, and Patel D, 2020). Attending such courses on related topics from reliable sources is recommended. Research, which usually takes a backseat in busy clinical practice, could also be undertaken during this challenging but relatively free period.

Electronic devices are being excessively used during this pandemic. They are being used for teleconsultation, communication, seeking knowledge on the pandemic, or keeping oneself busy through entertainment. The use of such electronic devices has also increased among those working from home due to curfews or locked downs. Excessive use of these devices leads to eye strain, dry eye, tearing, tired eyes, eye ache, headache, irritation and blepharitis (Colles-Brennan C et al,2019). Frequent breaks in work, and teleconsultation with eye doctors can help to address this problem.

The mental health of the population is negatively affected by the fear of this pandemic, and the excessive information through the television and social media has added to the anxiety among people. Limiting exposure to social media and relying more on authentic sources of the information on COVID-19 would reduce stress. Also, other stress-reducing measures such as obtaining information about pandemic

from reliable source, following routine but structured activities, follow the guide to live with worry and anxiety and seeking online help if needed, should be adopted during this pandemic (Pfefferbaum B et al,2020).

Most of the blinding eye diseases are age-related. Till 2019, the '45 to 64' and '65 + years' age-groups comprised 20.85% and 9.1% of the global population (Population pyramid 2019). The same age-groups had 23.1% and 72.3% of total COVID-19 related mortalities in mid-April 2020 (Worldometer, 2020). Similar high death rates in the elderly population are noted in other countries also. This global population change in 2020 and beyond needs to be considered while estimating the burden of blindness and blinding eye diseases.

The national and regional eye care services will face source constraints as budgets will give priority to COVID-19 related issues, and the economic slowdown could result in less funding and support for health programs like prevention of blindness and deafness (Rodella TT et al,2020).

Lessons from the past epidemics suggest that pandemics are not permanent. The COVID-19 pandemic will also phase out but may take a longer time as the vaccine against COVID-19, and effective treatment are not yet available (Simonsen L et al,2018). Eye care professionals, therefore, should remain safe and ready to tackle the backlog of avoidable blinding eye conditions such as cataract, diabetic retinopathy and glaucoma as soon as conditions become conducive for providing routine ophthalmic care in a safe environment.

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