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Challenges faced by ophthalmologists during COVID-19 era

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ABSTRACT

Purpose: Aim of this study was to assess the different difficulties North Karnataka's ophthalmologists encountered during the COVID-19 pandemic.
Materials and Methods: A online questionnaire was prepared to evaluate the various difficulties faced by the ophthalmologists following the lockdown period in their respective practice areas. Data was collected from the responding ophthalmologists on Google forms and analyzed using SPSS software.
Results: A total number of 160 responses were obtained. Most of them (32.59%) were in the age group 40–50 years and were working in private practice (35%). 78.12% of ophthalmologists returned to performing surgical procedures after a gap of more than a month post-lockdown. 38.12% of the participants reported a decrease in their surgical workload of more than 90% within this time frame. Significant fear of getting infected with COVID-19 in the operation theatres was reported. 65.65% of participants used N-95 masks while working. Revenue generation was affected significantly during this lockdown.
Conclusion: It is quite evident that the eye care practitioners have been affected significantly, with patient and staff safety being the major concerns.

1. Introduction

A global pandemic which was caused by the coronavirus disease in late 2019 (COVID-19) was reported to have emerged in the city of Wuhan, China with cluster of patients presenting with flu like illness and symptoms similar to severe acute respiratory syndrome or SARS.[1,2] The COVID-19 pandemic had taken the world by storm from early 2020 onwards and wreaking havoc on all aspects of human life including healthcare, education, the economy, mental health, and leisure.[3]

The first case of COVID-19 in India was reported on January 30, 2020, in the State of Kerala. An exponential increase in the number of COVID-19 cases was seen in the month of March.[4] India implemented a number of preventative measures, including a prohibition on overseas travel, contact tracking for sick people, and phased nationwide lockdowns.[5,6] From March 23 to May 31, India was placed under a nationwide lockdown, which had a severe impact on all aspects of healthcare, including ophthalmology treatment.[7] Patients were unable to visit even the outpatient departments of hospitals for many reasons, including limited mobility, a lack of accessible public transportation, and concern of getting infected by COVID-19 being the main reason. Additionally, hospitals, nursing homes, and healthcare providers limited their services and postponed basic and elective care. The majority of centers began doing cataract surgery around June 2020, especially in situations that required urgent treatment.[8]

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Cataract surgery is the most frequently done surgery around the globe. Because phacoemulsification produces aerosols, early reports and research suggest that this technique carries a significant risk of spreading the COVID-19 virus.[9,10] As per the guidelines set by the health ministry, COVID-19 RT-PCR testing was necessary before surgery in the acute phase of the disease.[11] The epidemic curve flattened during the next few months, and an increasing number of people required elective cataract surgery. Most of the facilities started phacoemulsification processes with different degrees of safety precautions.[12] Everywhere, a COVID-19 RT-PCR report being negative was a requirement. In January 2021, the elderly and healthcare professionals began receiving vaccinations. The COVID-19 recommendations were reviewed and updated if necessary if the patient was asymptomatic after receiving the first dose of the vaccination for both the medical staff and the patients.[13] The purpose of this online survey-based study was to evaluate the challenges that ophthalmologists encountered following the nationwide lockdown.

2. Materials and Methods

The online survey-based study was conducted amongst Ophthalmologists in Kalaburagi, Karnataka, using an online questionnaire designed to evaluate the various challenges faced by the ophthalmologists immediately following the lockdown period in their respective practice areas. Institutional ethics committee approval was taken. Data was collected using google forms from the responding ophthalmologists and analyzed using SPSS software. The questions covered a variety of parameters, including demographic details, type of practice, challenges faced post-lockdown, and economic implications. All categorical and nominal variables were presented as proportions (%).

3. Results

A total number of 160 responses were obtained during the study period. The information collected was tabulated and analysed as below.

3.1. Demographics and background

32.5% of respondents were in the 40–50 age range, 26.25% were in the 30–40 age range, 19.37% were above 50, and the remaining 10.62% were in the 20–30 age range (Figure 1). While freelance private practitioners made up the majority of respondents (35%), 19.37% worked for medical colleges or other educational establishments, 16.25% for government hospitals, 10.62% for corporate hospitals, 6.87% for multispecialty hospitals, 8.12% for charity hospitals, and 3.75% for postgraduate residents.(Table 1)

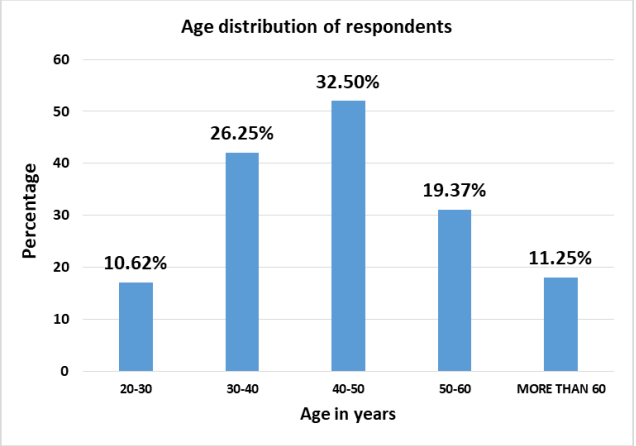

Figure 1: Age distribution of respondents

Table 1: Type of ophthalmic practice

S. No.	Type of Practice	Number	Percentage (%)
1.	Own Practice	56	35
2.	Government Hospital	26	16.25
3.	Medical Colleges	31	19.37
4.	Multispecialty Hospital	11	6.87
5.	Postgraduate Residents	6	3.75
6.	Corporate Hospital	17	10.62
7.	Charitable Hospital	13	8.12
Total		160	100

3.2. Post-lockdown effects on clinical ophthalmic practice

Following the lockdown, 3.12% of the participants began working in less than a week, 5.62% in two weeks, 13.12% in three weeks, and 78.12% in more than a month. When asked how long they thought it would take for things to return to normal, the majority (32.63%) said it would take at least three months. (Figure 2)

Nearly two-thirds (65.65%) of the surgeons used N95 respirators during the procedure, with the remaining doctors utilising three-ply surgical masks.

3.3. Post-lockdown effect on cataract surgery

A significant increase in procedures for mature cataracts (62%) was observed in the post-lockdown estimate of the types of cataract surgeries performed. About 16% of cataracts were hypermature, while the remaining 22% were nuclear or traumatic cataracts. Small incision cataract surgery was the surgical technique of choice for majority (59.3%) of the respondents while 40.6% preferred phacoemulsification surgical technique. (Figure 3)

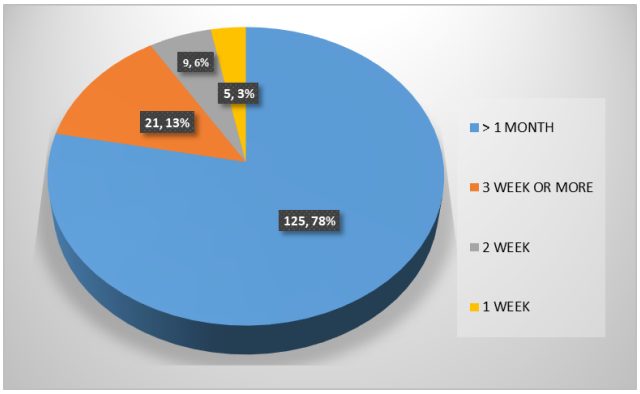

Figure 2: Post lockdown time gap before starting surgery

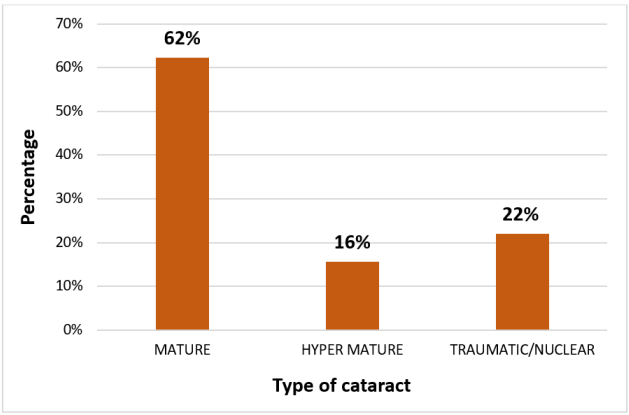

Figure 3: Post lockdown effect on cataract surgery

3.4. Post-lockdown effect on posterior segment procedure

Intravitreal injections accounted for 78% of procedures performed in the posterior area during this time. The other surgeries observed included silicone oil removal, scleral buckling, and pars plana vitrectomy.

3.5. Post-lockdown workload and financial impact

A considerable decrease in the number of procedures was observed during the post-lockdown period. 43% of respondents said their surgical workload was reduced by 75–90% compared to pre-lockdown times, while 38.12% said it was reduced by more than 90%. In contrast to the previous data, 6.25% of respondents indicated a task that accounted for 75–100% of their pre-lockdown load. (Figure 4)

The creation of revenue was greatly impacted by this shutdown. 12.5% of respondents said they had lost more than 90% of their revenue, while 43.75% said they had lost more than 80%. 76.9% of workers in different roles saw pay reductions during the lockdown, ranging from 19.2% to 28.8%, with compensation cuts ranging from 25–50%

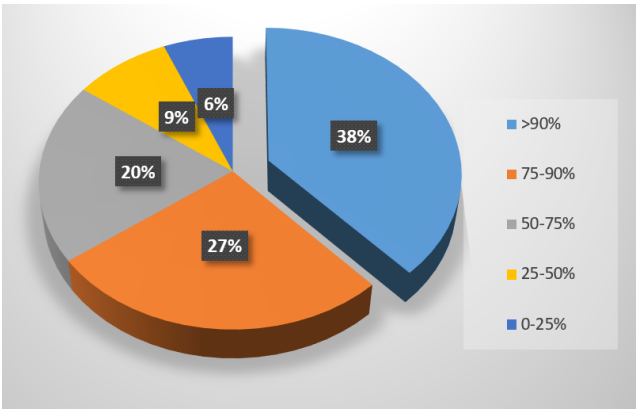

Figure 4: Post lockdown reduction in workload

(30.76%) to less than 25% (21.1%).

4. Discussion

Originating in Wuhan, China in December 2019, a distinct coronavirus disease outbreak (COVID-19) quickly expanded to other regions of the world. COVID-19 is a highly contagious virus that can lead to acute respiratory distress syndrome, which can be fatal. This form of disease is brought on by a novel betacoronavirus known as the severe acute respiratory syndrome coronavirus 2 (SARS-CoV2).[14] In less than four months, the outbreak moved swiftly from being classified as a WHO Public Health Emergency of International Concern to being formally declared a pandemic on March 11, 2020.[15] The metaphorical Black Swan of the twenty-first century, COVID-19 has proven to be an unforeseen event of great magnitude and impact that has fundamentally altered the way we live.[16]

In an attempt to slow the disease's rapid spread, the Indian government enforced a complete lockdown on all non-essential services throughout the whole nation. The first four stages of this lockdown in 2020 covered the dates of March 23 through April 14, April 15 through May 3, and May 18 through May 31.[17] The health care industry is supposed to lead the way in this crucial scenario and securely lead the rest of the nation through this worldwide pandemic. It is the duty of healthcare professionals to safeguard themselves against contracting this potentially fatal illness in addition to providing patients with sufficient care. Hospitals' capacity to care for a large number of patients has been severely hampered by the social exclusion policy implemented to stop the disease from spreading.[18] The difficulty can increase if the patient waits too long to present to the hospital because of the lockdown and fear of infection. Due to the limitations caused by the lockdown, several eye care institutions were operating at a scale that was far lower than usual. The provision of high-quality coordinated care by healthcare providers must be increased,

and delays in receiving hospital care must be avoided.[19]

In the survey we conducted, over 54% of ophthalmologists in the 20–30 age range expressed fear of contracting COVID–19 in the operating room, compared to only one-third of ophthalmologists in the 50–60 age range (high-risk age group) who expressed concern. High-risk age group population was significantly impacted by COVID-19, as reported by a few studies.[7] While it seems that a greater percentage of younger respondents expressed anxiety, research indicates that younger people with no other comorbidities had a lower case fatality rate, and systemic comorbidities raise the risk of mortality when infected with SARS-CoV-2.[20] According to the results of our survey, there are many reasons for the decrease in workload among ophthalmic colleagues, including the fear of getting infected with COVID-19 from patients and other healthcare providers, the difficulty in getting protective equipment, the lack of employees, supplies, and support services, and the absence of transportation.

42.2% of responders to a prior survey conducted during the lockdown said they would return to work either right away (11.8%) or after one week (30.4%).[7]

Furthermore, the majority of ophthalmologists surveyed among practising physicians and ophthalmologists indicated that they will begin performing elective surgery within two weeks of the end of lockdown.[21] But according to our poll, 78.12% of participants returned to surgery more than a month following the shutdown. This indicates that the resumption of ophthalmic services, especially elective surgical procedures, has been slower than previously anticipated.

Cataract is the second most common avoidable cause of vision impairment.[22,23] Mature cataract was the most often operated-upon type of cataract in our survey during the post-lockdown period. This indicates that both patients and ophthalmic surgeons delayed treating less visually impaired types of cataract. A study on the impact of lockdown on elective surgical treatments anticipated that by May 2020, 5.8 lakh elective surgical procedures (including all medical procedures) would be postponed in India, raising the risk of complications and fatalities.[24] The suspension of such voluntary procedures is projected to significantly increase India's already high cataract load (as seen in the United States).[25]

Significant revenue losses were experienced by the majority of survey participants, which can be linked to decreased workloads or wage reductions. Our survey additionally shows that 34.4% of ophthalmologists continuing to perform surgery with three-ply masks, in spite of all awareness campaigns.

Owing to the previously indicated causes, the COVID-19 epidemic has had a major psychological impact on the country's practising ophthalmologists, making specialised mental treatment necessary, especially for those suffering from mild to severe depression.[26] A study was done by Khanna et al. to determine how COVID-19 affected Indian ophthalmologists psychologically.[27] According to the study, Depression was reported by 32.6% of the ophthalmologists that responded.[27] Numerous factors, some of which have emerged in our survey, are probably responsible for the psychological stress, including loss of income, job instability, possible Covid-19-related health risks for healthcare providers and their families, and a lack of readiness to practise in light of newer working conditions.

5. Limitation

Although the sample size is modest, it provides insight into the difficulties faced by ophthalmic specialists in the aftermath of the lockdown. To validate the study's conclusions, a bigger investigation would be required.

6. Conclusion

Our survey emphasises the various issues that practising ophthalmologists encountered during the post-lockdown phase of the COVID-19 pandemic. It is apparent that not only has eye care been greatly impacted, but healthcare personnel have also been negatively impacted on a number of fronts, including monetary losses and psychological issues. There was a decrease in the number of elective cataract surgeries performed not only during the three waves of the COVID-19 pandemic but also during the interwave intervals when the epidemic restrictions were relaxed. Moreover, an increase in the number of mature and hypermature cataracts was noted, and a decrease in the number of patients with nuclear cataracts was noted.

With tele-ophthalmology being permitted, patients may at least see an ophthalmologist, which makes it an essential tool in today's world.[28]

7. Source of Funding

Nil.

8. Conflicts of Interest

Nil.

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