



BARRIERS IN UPTAKE OF CATARACT SURGERY IN THE COVID ERA: PATIENT'S PERCEPTIONS

Ophthalmology

Dr Tania Moudgil Professor, Department of Ophthalmology, Punjab Institute of Medical Sciences.

Dr Yashi Bansal Associate Professor, Department of Ophthalmology, Punjab Institute of Medical Sciences.

Dr Amandeep Singh Assistant Professor, Department of Ophthalmology, Punjab Institute of Medical Sciences.

Dr Seema Bandhu Professor, Department of Ophthalmology, Punjab Institute of Medical Sciences.

Dr Sukhmeen Kaur Junior Resident, Department of Ophthalmology, Punjab Institute of Medical Sciences.

Dr Barinder Kaur* Associate Professor, Department of Ophthalmology, Punjab Institute of Medical Sciences. *Corresponding Author

ABSTRACT

Purpose: To evaluate the barriers in acceptance of cataract surgery during COVID-19 (Coronavirus disease-2019) era. **Material and methods:** A cross sectional descriptive study was conducted in months of August and September 2020. Number of patients who refused the surgery were noted and compared with retrospective data of patients who refused cataract surgery in August and September 2019. The patients who refused cataract surgery were administered semi structured interview noting sociodemographic data, characteristics of cataract, reasons for refusing cataract surgery related to COVID-19 and otherwise and reasons for refusal to get tested for COVID-19. **Results:** A total of 100 patients (57 females and 43 males) who refused cataract surgery, 12 patients had visual acuity (VA) less than 6/60 and 50 had VA between 6/18-6/60. Amongst the barriers not relating to COVID-19 were daily activity not suffering (45) followed by fear of the surgery (25) and relating to hospital services were unwillingness for COVID-19 testing (85), getting COVID-19 infection from the hospital (24), lot of time is wasted (25) and they do not trust the level of precautions taken by the hospital at this point of time (20). Barriers related to COVID-19 were: refusal to get COVID-19 tested prior to surgery (85), procedure is not an emergency, they want to defer it (51), their family members may get COVID-19 infection from them, if they get surgery at this time (15), increase in financial burden and owing to that they cannot get cataract surgery in this period (65) and lack of transport (25). **Conclusions:** COVID-19 has negatively impacted on cataract surgery uptake.

KEYWORDS

Cataract, cataract extraction, COVID -19, Visual acuity

INTRODUCTION

India, reported its first coronavirus case on 30 January, 2020 in Kerala state and its first corona virus Covid-19 death on 12 March, 2020 in Karnataka.¹ The virus spread worldwide and on 11 March 2020 the WHO defined the disease caused by this virus — COVID-19 — as a pandemic.² This led to nationwide Lockdown on 22nd March 2020. The ongoing Covid-19 pandemic and the subsequent nationwide lockdown, has impacted all aspects of society including medical profession. In hospitals, the focus shifted to prevention and treatment of Covid-19 infection. Owing to this, all elective surgeries were postponed and only emergency surgeries were performed.^{3,4,5} But as the lockdown was relaxed and with the guidelines issued by health authorities, elective surgeries have been resumed. The burden of cataract is one of the leading causes of reversible blindness in India.⁴ The lockdown led to increase in this burden^{5,6} and with the relaxation of the lockdown, cataract surgeries have been resumed. But still the patients are reluctant to get their cataract surgery despite being advised the need for the same.

The reasons cited are fear from contracting disease in the hospital, not an emergency, lack of financial resources etc. This study is being undertaken to evaluate the reasons behind refusal to get the cataract surgery despite being advised to get the same.

AIM

- To evaluate the proportion of patients who refused cataract surgery
- To evaluate the reasons for refusal of the cataract surgery

MATERIAL AND METHODS

After approval from the Institutional Ethics Committee (IEC), a hospital based cross sectional descriptive study was carried out. Inclusion criteria were consecutive patients advised cataract surgery for a period of 2 months post lockdown from August 2020 to September 2020. Exclusion criteria: cataract patients less than 40 years of age, patients having any fever, cough or breathlessness.

The patients enrolled in the study were sensitized in their vernacular language about the purpose and nature of the study. Socio-demographic

data was noted which included age, gender, socioeconomic status, literacy, residence and employment. They were subjected to a detailed work up: visual acuity (using Snellen's chart), grade of cataract (on slit lamp), laterality, anterior segment and posterior segment examination (on slit lamp and indirect ophthalmoscopy) and any comorbid conditions were noted. Their willingness for getting cataract surgery was asked.

The proportion of the patients who refused the surgery was noted and compared with the data available from last year in the same months (August and September 2019). Then, a total of 100 patients who had refused cataract surgery were enrolled for further study and a semi structured interview was conducted for the patients in their vernacular language noting the reasons for refusing surgery. The questions of the semi structured interview were devised from existing literature and focus group interview of cataract patients who had refused surgery (those patients were not included in the study). Barriers relating to patient's perceptions for surgery during COVID times, affordability were noted. To maintain the reproducibility and reliability of the data collection, the interview was conducted by the same interviewer who was trained for administering the same in department of ophthalmology of the institution. The interviews were conducted away from the rest of the authors and the attendants of the patients in a separate room.

Collected data was entered in MS Excel spreadsheet. The patients were provided codes to maintain confidentiality. Percentage of patients reporting each barrier was noted. Thematic analysis of qualitative data was done.

RESULTS

A total of 269 cataract patients (125 males and 144 females) with age ranging from 45-75 years (median 57.5 years) were enrolled for the study, out of which 100 patients (57 females and 43 males) refused surgery with age ranging from 51-75 years (median 64.5 years). The patients who refused surgery were 125 out of 525 cataract patients in month of August and September 2020. Comparison of refusal rate this year as compared to last year is shown in fig 1.

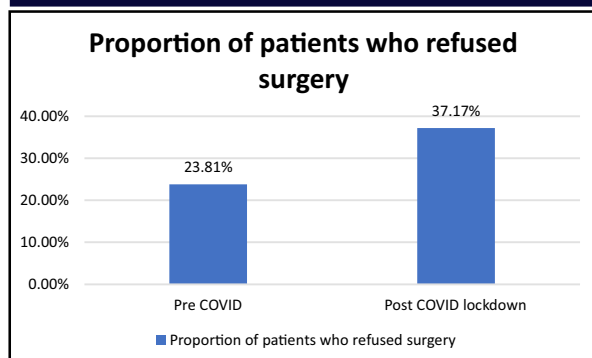


Fig 1. Comparison of patients who refused surgery pre COVID and Post COVID lockdown

The socio- demographic data and characteristics related to cataract of patients is given in table 1.

Table 1: Characteristics of Sociodemographic and cataract of the patients

Characteristics: Demographic, Social and of the Cataract				
Gender	Male	Female		
	57	43		
Age	Range	Median		
	51-75 yrs.	64.5 yrs.		
Residence	Rural	Urban		
	66	44		
Occupation	Agriculture	Small business / employed (annual income >5 lakhs)	Employed/ business (annual income >5 lakhs)	below poverty line
	25	36	25	14
Laterality of Cataract	Unilateral	Bilateral		
	81	19		
Maturity of cataract	Immature	Mature		
	65	35		
Visual acuity in the cataractous eye	>6/18	6/18-6/60	<6/60	
	12	50	38	

All (100/100) the patients who refused surgery were aware that cataract was curable by surgery in their case. The frequency of the reported barriers for getting cataract surgery is shown in table 2 and table 3.

Table 2: Barriers as per perception of patients for cataract surgery not relating to COVID

Barriers	Reported by number of patients
Daily activity not suffering yet	45
weather condition not favourable	25
Cataract not mature	51
Fear of surgery	25
Financial limitations	75
Lack of family support	40
Others	11

Table 3: Barriers related to hospital services

Barriers	Reported by number of patients
Do not want to get COVID test prior to surgery	85
Lot of time is wasted in billing and reception	25
Do not trust the level of precautions taken to prevent COVID	20
Malpractice	1
Will get COVID	24

The barriers related specifically to COVID are shown in Table 4 and views regarding COVID testing in Table 5

Table 4: Barriers related to COVID

56	International Journal of Scientific Research
----	--

Barriers	Reported by no. of patients
Do not wish to get COVID tested	85
Procedure is not an emergency	51
Family members will be at risk following the patient's surgery	15
fear the current situation and do not want to visit hospital	10
Anxious	5
Lack of transport	25
increase in financial burden owing to COVID	65
Lack of family members to look after	35

Table 5: Reasons for not getting the tests of COVID done

Reasons for not getting the tests of COVID done	Reported by number of patients
they don't trust testing is being done fairly	60
they don't have any symptoms	70
scared of the testing procedure	30
stigma associated with it	42

DISCUSSION

The socio-demographic data in our study had comparable number of males and females. The rural representation (66 %) in our study was more than urban. This may be due to the fact that our tertiary institute caters to surrounding villages. Main occupations reported in our study were small business (annual income less than 5 lakhs) and agriculture. 14% of the patients were below poverty line. This reflects the type of patients catered by the hospital.

The number of cataract surgery refusal rate this year as compared with the last year in same months is significantly higher. Most of the patients (81%) patients in our study had unilateral cataracts and 19% had bilateral cataracts. 5 % of the patients were single eyed. 38 % of the patients had visual acuity less than 6/60. Majority of the patients (50%) had visual acuity between 6/18 -6/60. These patients still refused surgery despite low vision. This finding is comparable to other studies in pre COVID era.^{7,8} Maturity of cataract also had a role to play as 65% of the patients had immature cataract; which is also cited as one of the reasons in other studies too for delayed cataract surgery in pre COVID era.^{9,10}

In our study, financial limitations was cited as one of the major reasons for refusal for surgery which is in accordance to other studies.^{9,10} Amongst the barriers listed as per perception of patients for cataract surgery not relating to COVID were daily activity not suffering(45%) followed by fear of the surgery(25%), weather conditions not favorable (prefer winters)(25%). Amongst the barriers reported regarding hospital services the reasons cited were related to COVID prevention, amongst which 85 % reported their unwillingness for COVID testing, followed by getting COVID infection from the hospital, lot of time is wasted and they do not trust the level of precautions taken by the hospital at this point of time. This is in in concordance to other studies done on barriers to cataract surgeries in Pre COVID era and financial limitations as one of the major causes for delaying cataract surgeries.^{9,10,11,12,13} Though in our study myth of letting the cataract mature and lack of family support also emerged as leading reasons too. This points out that lot of awareness in the community is needed regarding myths associated with cataract surgery.

In barriers related specifically to COVID: all patients reported that they would have considered surgery if the COVID was not prevalent. As per the guidelines issued in our institute for elective surgeries, it was mandated to get COVID Rt – PCR test for the patients. Majority of the patients (85 %) cited that they do not want to get tested for COVID. Among the reasons cited for not getting the test done were: they don't trust testing is being done fairly (60%), they don't have any symptoms (70%), scared of the testing procedure (30%), stigma associated with it (42%). Stigma associated with the COVID diseases has been a concern and other authors have also asked to ensure steps to take care of this stigma.^{14,15,16} Owing to high percentage of the refusal of the test, it could be one of the contributing reasons towards refusal of surgery in COVID era. Amongst the hospital services also 85% of the patients reported that they do not wish to get COVID tested prior to surgery. Amongst them 51 % reported that as the procedure is not an emergency, they want to defer it. 15 % reported that their family

members may get COVID infection from them, if they get surgery at this time. This finding in accordance to study done in UK where the risk of contracting COVID was cited as one of the reasons for refusal of surgery.¹⁷ Out of them 10% were afraid that they fear the current situation and do not want to visit the hospital and 5 % were just anxious. 65 % of the people reported that COVID era has increased their financial burden and owing to that they cannot get cataract surgery in this period. The concerns of spending on health post lockdown have been raised by others owing to where there is lack of mobility, loss of jobs and increased out of the pocket expenditure.^{18,19,20,21} Lack of transport was reportedly one of the major reasons for not getting surgery done owing to lockdown. Lack of people to take care after surgery also was cited as one of the barriers owing to COVID.

This study of barriers to uptake of cataract surgery by patients shows that though elective surgeries have started still patients are refusing surgery owing to both COVID related and non-related barriers.

CONCLUSION

Cataract is a reversible cause of blindness and in the lockdown pertaining to COVID, this reversible burden of blindness has increased. COVID has added to this reversible cause of blindness burden indirectly due to fear of getting infection, financial instability and lack of transport.

REFERENCES

1. Rawat, Mukesh (12 March 2020). "Coronavirus in India: Tracking country's first COVID-19 cases; what numbers tell". India Today
2. Sohrabi, C. et al. World Health Organization declares global emergency: a review of the 2019 novel coronavirus (COVID-19). *Int. J. Surg.* 76, 71–76 (2020).
3. Sarin YK. Resuming elective surgeries in Corona pandemic from the perspective of a developing country. *J. Pediatr. Adolesc. Surg.* [Internet]. 2020 Jul;10 [cited 2020 Aug;27];1(1). Available from: <http://jpedas.org/ojs/index.php/jpedas/article/view/27>
4. Fu SJ, George EL, Maggio PM, Hawn M, Nazerali R. The consequences of delaying elective surgery: surgical perspective. *Ann Surg.* 2020;272(2):e79-e80
5. Kibbe MR. Surgery and COVID-19. *JAMA.* 2020;324(12):1151-2.
6. Dandona L, Dandona R, John RK. Estimation of blindness in India from 2000 through 2020: implications for blindness control policy. *Nat Med J India* 2001;14:327–34
7. Agarwal R, Sharma N, Patil A, Thakur H, Saxena R, Kumar A. Impact of COVID-19 pandemic, national lockdown, and unlocking on an apex tertiary care ophthalmic institute. *Indian Journal of Ophthalmology.* 2020 Nov 1;68(11):2391.
8. Jain A, Dai T, Bibee K, Myers CG. Covid-19 Created an Elective Surgery Backlog. How Can Hospitals Get Back on Track?. <https://hbr.org/2020/08/covid-19-created-an-elective-surgery-backlog-how-can-hospitals-get-back-on-track>. Last accessed on 28 Oct, 2020
9. Dhaliwal U, Gupta SK. Barriers to the uptake of cataract surgery in patients presenting to a hospital. *Indian J Ophthalmol* 2007;55(2):133-6.
10. Lewallen S, Courtright P. Recognising and reducing barriers to cataract surgery. *Community Eye Health* 2000;13(34):20-1.
11. Tabin G, Chen M, Espandar L. Cataract surgery for the developing world. Current opinion in ophthalmology. 2008 Jan 1;19(1):55-9.
12. Grimes CE., Bowman KG., Dodgion CM. Lavy CB Systematic Review of Barriers to Surgical Care in Low-Income and Middle-Income Countries. *World J Surg* 2005;35: 941–50
13. Kovai V, Krishnaiah S, Shamanna BR, Thomas R, Rao GN. Barriers to accessing eye care services among visually impaired populations in rural Andhra Pradesh, South India. *Indian journal of ophthalmology.* 2007 Sep;55(5):365.
14. Fletcher AE, Donoghue M, Devavaram J, Thulasiraj RD, Scott S, Abdalla M, Shammugham CA, Murugan PB. Low uptake of eye services in rural India: a challenge for programs of blindness prevention. *Archives of Ophthalmology.* 1999 Oct 1;117(10):1393-9.
15. Earnshaw VA, Brousseau NM, Hill EC, Kalichman SC, Eaton LA, Fox AB. Anticipated stigma, stereotypes, and COVID-19 testing. *Stigma and Health.* 2020 Aug 31.
16. Grover S, Singh P, Sahoo S, Mehra A. Stigma related to COVID-19 infection: Are the Health Care Workers stigmatizing their own colleagues?. *Asian Journal of Psychiatry.* 2020 Oct 1.
17. Bhattacharya P, Banerjee D, Rao TS. The "Untold" Side of COVID-19: Social Stigma and Its Consequences in India. *Indian Journal of Psychological Medicine.* 2020 Jul;42(4):382-6.
18. Naderi K, Maubon L., Jameel A, Patel DS, Gormley J, Shah V. Attitudes to cataract surgery during the COVID-19 pandemic: a patient survey. *Eye* (2020). <https://doi.org/10.1038/s41433-020-1112-9>
19. Mohan D, Bhattacharjee A. A lockdown is the health response to fight coronavirus, but where is the economic plan?. <http://dspace.jgu.edu.in:8080/jspui/bitstream/10739/3399/1/A%20lockdown%20is%20the%20health%20response%20.pdf>. Last accessed on 29 oct 2020
20. Brooks SK, Webster RK, Smith L.E, Woodland L, Wessely S, Greenberg N, Rubin GJ. The psychological impact of quarantine and how to reduce it: Rapid review of the evidence. *The Lancet* 2020; 395:912–20.
21. Golechha M. COVID-19, India, lockdown and psychosocial challenges: What next?. *International Journal of Social Psychiatry.* 2020 Jun 13:0020764020935922.