



ASSESSMENT OF THE REASONS FOR PRESENTATION TO GLAUCOMA SERVICES DURING THE PANDEMIC AND THE KNOWLEDGE, ATTITUDE, PRACTICES (KAP) IN RELATION TO COVID-19

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ABSTRACT **Purpose:** To assess the reasons for visit amongst patients presenting to the glaucoma services and to assess their Knowledge, Attitude, Practices (KAP) in relation to COVID-19 and to assess the impact of COVID-19 on the glaucoma care provision. **Methods:** Design: Cross-sectional, observational study. Patients older than 18 years presenting to the glaucoma services at our tertiary eye centre either for the first time or for follow-up between October and December 2020 - the immediate unlock period following the first wave of COVID-19 pandemic were included. Data collected include the demographic details, visual acuity, intraocular pressure, examination findings, final diagnosis and suggested treatment. The patients' KAP was then assessed using a validated questionnaire. The distribution of the various glaucoma diagnoses was compared between 2020 (pandemic year) vs. 2019 (pre-pandemic year) **Results:** Overall, 246 patients were included. The main reasons for seeking care were headache (66.3%) followed by ocular surface symptoms like itching or irritation (25.2%) and pain (10.9%). 84.7% of follow-up patients reported that their visit to the hospital was delayed predominantly due to fear of getting infected (62.2%), paucity of public transport (48.4%) and lack of accompanying person (12.6%). There was significantly greater proportion of new primary angle closure patients (40.3%, $p=0.036$) whereas those with primary open angle glaucoma had come for follow-up care (26.1 %, $p=0.048$). The mean KAP scores of the patients were 83.1%, 65.5% and 81.7% respectively. **Conclusion:** KAP in relation to COVID-19 was good and there was a greater proportion of patients with acute presentations.

KEYWORDS : COVID-19 Pandemic; Glaucoma presentation; Knowledge, Attitude and Practices

INTRODUCTION

Coronavirus disease 2019 (COVID-19), in comparison to other lethal viruses, is more infectious, and has become the biggest challenge to healthcare systems across the globe. During the first wave of the COVID-19 pandemic, several countries had announced lockdowns and most of the non-emergency health services were closed. The Government of India had declared nationwide lockdown from March 24th, 2020 till June 8th 2020.^[1] Several eye hospitals had stopped routine services, and only patients with emergency conditions were given appointments.^[2] Public transportation services were halted and own or hired vehicles were the only means of travel. Thus, there was a drastic reduction in the number of patients seeking eye care.^[3-6]

Glaucoma being highly asymptomatic, necessitates regular follow-up to assess progression which may not be noticeable to the patient themselves until the disease becomes advanced.^[7,8] It is likely that patients with predominantly asymptomatic glaucoma could have delayed their periodic follow-up visits. It has been reported that there was an 81% reduction in the number of glaucoma surgeries during the initial months of the pandemic in south India.^[9] The situation was the same globally with developed country like Italy reporting that elective surgeries were reduced by 96% and urgent surgeries by 50%.^[10] Furthermore, glaucoma patients are usually the elderly and have systemic comorbid conditions making them vulnerable to severe COVID-19.

A majority of patients were concerned about the limitations in accessing ophthalmic care and were also fearful of disease progression but still delayed their follow-up visits for the fear of getting exposed to COVID-19.^[11] Despite all the barriers, some patients still sought eye care during the pandemic. There are studies which assessed the barriers for hospital visit during the pandemic,^[12,13] however, there is paucity in literature about the reasons for hospital visit amongst the glaucoma patients and their awareness levels about COVID-19.

This study aimed to find out the reasons for hospital visit amongst the glaucoma patients during the first wave of the pandemic. We also wanted to assess whether there was any dearth of knowledge about the pandemic and whether proper precautions were being taken by them. Furthermore, we assessed the impact of the pandemic on glaucoma

care by comparing the proportion of patients with various types of glaucoma with the previous year's data, that is, the immediate pre-pandemic period.

MATERIAL AND METHODS

This cross-sectional, observational study was conducted in the glaucoma services at a tertiary eye care centre in southern India. Institutional Review Board approval was obtained and the research adhered to the tenets of the Declaration of Helsinki. The study was registered with Clinical Trials Registry of India (CTRI-2020/10/028278).

Study Participants

New patients or patients reviewing back to the glaucoma services from October-December 2020 and over 18 years of age were invited to participate in the study. During this period, there was minimal travel restriction and few public transportations were available.^[14] Written informed consent was then obtained. We included patients with primary open angle glaucoma (POAG), primary angle closure (PAC), primary angle closure glaucoma (PACG), secondary open angle glaucoma (SOAG), secondary angle closure glaucoma (SACG) and glaucoma suspects including disc suspects [clinically suspicious optic disc with normal intraocular pressure (IOP) and open angles], ocular hypertension (OHT), primary angle closure suspects (PACS). Patients who were cross referenced from other specialities for secondary raised IOP were excluded.

Patient Assessment

The data collected comprised patients' age, gender, educational status, distance travelled, time taken to reach the hospital, mode of transport, details of accompanying person, ocular, systemic history, and the primary reason for visiting the hospital.

All the participants underwent refraction to assess the best corrected visual acuity (BCVA), IOP evaluation by Goldmann applanation tonometry or Rebound tonometry, gonioscopy by 2 mirror (Ocular Instruments Inc., Bellevue, WA, USA) or 4 mirror gonio lens (Posner Gonioprism, Ocular Instruments Inc., Bellevue, WA, USA), anterior segment and fundus examination using a slit lamp bio-microscopy and 90 Dioptre lens respectively. The standard definitions were followed to

define the various types of glaucoma.^[15] Advanced glaucoma was defined by the presence of a cup-to-disc ratio of 0.85 or higher.^[16] Details regarding the final diagnosis, treatment suggested at the current visit (whether it was medical, laser or surgical) were also noted.

Knowledge, Attitude and Practices (KAP) Assessment

We then assessed the patient's KAP in relation to COVID-19 using a questionnaire. The questionnaire was newly designed in English and translated to the regional language, Tamil. The questionnaire was administered immediately after the clinical evaluation by one of two well experienced study co-ordinators. The questionnaire was validated by a pilot study on a sample of 30 glaucoma patients with the same inclusion criteria. The Cronbach's alpha test was used. The scores for Knowledge, Attitude and Practice were 0.636, 0.775 and 0.786 respectively. There were 12 questions for Knowledge, 6 for Attitude and 10 for Practice assessment. Likert scale was used to assess the responses.

Impact of COVID-19 on Glaucoma Care

In addition, data regarding the total number of patients who presented to the glaucoma department and their specific diagnoses during the corresponding period in 2019 (October-December 2019) were retrieved from the medical records for comparison with the current data in 2020.

Statistical Analysis

The knowledge score of 80.5% was taken as reference with 5% precision and 95% confidence interval.^[17] A sample size of 246 was thus needed to assess the knowledge, attitude and practices of glaucoma care seeking patients. Age and gender were expressed in Mean \pm standard deviation (SD) and frequency (percentage) respectively. Categorical variables like education, systemic history, mode of transport was assessed using Fisher's exact test or Chi squared test. Continuous variables like BCVA, IOP, KAP score was analysed using independent t-test or Mann-Whitney U test. The proportion of patients with a particular type of glaucoma during the same period in the previous year was compared using the proportion test. A p value <0.05 was considered statistically significant. All the statistical analysis was performed by statistical software STATA 14.0 (Texas, U.S.A).

RESULTS

Demographic Characteristics

We included 246 patients in the study. The male: female ratio was 13:12. The mean age was 57.9 (+/-12.9) years. On an average, the distance travelled by a patient to reach our hospital was 76.2+/-59.9 km (Range: 2-300 km). A 4-wheeler was the most common mode of transport. Just over a fourth of the patients had completed graduation (25.6%). An accompanying person was necessary for 80.1% of the patients. Coexistent diabetes was present in 22%, 34% had hypertension, 15% had chronic obstructive pulmonary disease and 17% had cardiac issues.

Reasons for Seeking Care During the Pandemic

Majority of them had come for follow-up care (n=215, 87.4%) and only 12.6% (n=31) were new patients. The main reasons for seeking care were headache (n=163, 66.3%) followed by ocular surface symptoms like itching or irritation (n=62, 25.2%) and pain (n=27, 10.9%). Defective vision, redness was the presenting complaint in only 5% (n=12) and 6% (n=14) of them respectively. A sparse 4% had come for a routine follow-up and 1% for glasses. Twenty-two (8.9%) patients were referred from elsewhere, predominantly by private practitioners, the major reason being the need for tertiary eye care (59%) (Supplementary material 1).

Use of Anti-glaucoma Medications

One-hundred and fifty (61%) patients were on anti-glaucoma medications among whom 17 (11.3%) had either discontinued medications or were using irregularly. Around 18% of the patients who were using anti-glaucoma medications had difficulties in refilling them (Supplementary material 1).

Issues with Seeking Care

One-hundred and fifty (69.7%) patients reported that their scheduled follow-up had been delayed and 60 of them (40%) said that it was delayed by 6 months or more. The major causes for delay included the fear of getting infected (62.2%), paucity of public transport (48.4%) and lack of an accompanying person (12.6%). Moreover, 107 (43.5%) patients perceived that their vision had deteriorated since the previous

visit and 64 (26%) patients who had been advised surgical intervention earlier could not undergo the same (Supplementary material 1).

Diagnosis of the Patients

Among the 246 participants (492 eyes), the majority were eyes with PAC or PACG (n=180, 36.6%). There was significantly greater proportion of new PAC (40.3%, p=0.036) whereas those with POAG had come for follow-up care (26.1%, p=0.048) (Table 1).

Ocular Features

The mean uncorrected visual acuity (UCVA) and BCVA was 0.57+/-0.67 and 0.32+/-0.69 respectively. Among the new patients (62 eyes), 17.7% (11 eyes) had advanced glaucoma whereas among the review patients this proportion was slightly higher at 22.8% (98 eyes). Medical management alone with either topical medication or symptomatic treatment was prescribed in 61.2% (n=301) of the eyes, 10.6% (n=52) needed laser peripheral iridotomy, 7.7% (n=38) were advised surgical procedure, either a cataract surgery alone or combined trabeculectomy with cataract surgery or trabeculectomy alone or a glaucoma drainage device implantation. The rest 20% (101 eyes) were advised observation with periodic follow-up.

Knowledge, Attitude and Practices Related to COVID-19

Tables 2-4 shows the responses to the questions on KAP related to COVID-19. The mean KAP scores of the patients were 39.9/48 (83.1%), 11.8/18 (65.5%) and 32.7/40 (81.7%) respectively.

Knowledge: The patients had good knowledge (mean=83.1%) regarding the symptoms of COVID-19. More than 50% of them, however, falsely believed that a patient who does not have fever cannot transmit the disease. More than 99% of them were aware of the major preventive measures but 15% of them felt that children and young adults need not take such preventive measures (Table 2).

Attitude: Wearing tight masks when stepping outside the home was difficult for 32.7% of the patients and 40% of them reported challenges in avoiding crowded places like religious places, markets and use of public transportation. Staying at home (93.1%) and hand washing (92.2%) were perceived to be the easiest of preventive measures (Table 3).

Practice: The study population had followed good practices (mean=81.7%) overall but 15% of them reported pulling their mask down while talking to someone. Around 43% of them had reported touching their face with unwashed hands (Table 4).

Demographic Factors and KAP

There was no significant difference in the KAP score between the various age groups or gender (p=0.906, 0.626, 0.589 for KAP across various age groups and p=0.895, 0.606, 0.706 for KAP vs gender). Those with better educational status were found to have a better knowledge score (86.4%) than the uneducated (p<0.001). However, there was no significant difference in the attitude or practice scores in relation to the educational status (p=0.869 and 0.064 respectively). The KAP score also did not have any association with the severity of glaucoma (p=0.125).

Comparison of Various Glaucoma Diagnoses Between 2019 and 2020

We found that there were significant differences in the distribution of the various glaucoma diagnoses between 2020 (pandemic year) vs 2019 (pre-pandemic year) (p<0.001). There was a significant reduction in the proportions of predominantly asymptomatic conditions like POAG (p<0.001), disc suspects (p=0.001) and post trabeculectomy (p=0.003) patients in 2020 as compared to 2019. There was also a significant reduction of phacolytic glaucomas (p=0.034), steroid induced glaucoma (p<0.001), pigmentary (p=0.01) and uveitic glaucomas (p=0.01), whereas the proportion of patients with predominantly symptomatic glaucomas like PAC (p=0.027), PACG (p=0.001), pseudoexfoliation glaucoma (PXF) (p=0.004), neovascular glaucoma (p<0.001), secondary angle closure (p<0.001), SOAG (p=0.048) increased in 2020. (Table 5).

DISCUSSION

Our study done at a tertiary eye care centre revealed that the main reasons for seeking glaucoma care during the COVID-19 pandemic were headache (66.3%) followed by ocular irritation (25.2%). There was a rise in acute presentations and decrease in the presentation of asymptomatic conditions. The knowledge and practice score related to

COVID-19 were good at greater than 80%.

We found that the major causes for delay in seeking care were the apprehension of contracting the infection, paucity of public transport and lack of an accompanying person. There was no complete lockdown during our study period as it was conducted immediately after the unlock phase during the first wave. Despite this, patients preferred a 4-wheeler for travel (38.2%), implying the wish to avoid public transportation. Ours being a referral centre, people come from adjacent districts and the average distance travelled was 76.2 km, with some people even travelling up to 300 km. A previous study from southern India before the pandemic also suggested that a significant proportion of patients travelled for more than 100 km to receive specialty eye care than for cataract services;^[18] however, in the United States of America, 90% of the Medicare population reportedly live within half an hour of driving time from an ophthalmologist.^[19] These reveals the significant gap in the access to health care between the developed and the low- and middle-income countries.

Recently, before the pandemic, Odayappan et al. showed that among patients diagnosed to have new primary glaucoma the main reasons for seeking eye care was defective vision.^[6] This was in contrast to our study, where headache, ocular irritation and pain were the main complaints suggesting more acute presentation of the patients. Of note, 8.9% of patients had been referred by either private practitioners or optometrists for tertiary eye care. This might be because a few peripheral eye care centres were not functioning to the complete extent.

We found that over 11% of the patients who were on anti-glaucoma medications discontinued their medications as they had issues with refilling possibly due to financial constraints or fear of travel. A cross-sectional study in a tertiary eye hospital in south India to understand the factors affecting drug compliance before the pandemic, reported that 50% of study participants had missed medications predominantly due to forgetfulness (35.3%).^[20] Another study from a tertiary eye care centre in south India during the pandemic, found that non-availability of medications (57.8%) and financial constraints (30.2%) were the major reasons for irregular treatment among glaucoma patients.^[21] Similarly from Croatia, it was reported that only 39.8% of patients adhered to topical glaucoma medications during the pandemic and forgetfulness was the main reason for missing the dose. Patients with positive attitude towards the efficacy of the drug, those with family support and having positive relationship with healthcare providers were found to have better adherence.^[22]

Moreover, the presentation of glaucoma patients had showed significant differences in distribution of diagnosis between 2019 and 2020. There was reduction in POAG, disc suspects and increase in the proportion of PAC, PACG, PXFG, neovascular glaucoma and other secondary glaucomas. These are patients who would have had pain symptoms at onset or would have undergone procedures like laser peripheral iridotomy. It is likely that these patients were more apprehensive about losing their vision and hence sought care.

The proportion of lens induced glaucomas (LIG) in our cohort was less than the pre-pandemic year despite the cataract surgery rate dropping during the lockdown period.^[23] The possible explanation could be that, patients despite developing LIG probably did not seek care at a tertiary level. Ayub et al. reported that a lack of an accompanying person was one of the main reasons for late presentation in LIG.^[24] In addition to this, the various pandemic related factors discussed earlier probably prevented these patients from seeking care.

Azlan et al. assessed the KAP related to COVID-19 in Malaysian residents in March-April 2020 and their overall knowledge score was 80.5%.^[17] Christy et al. had conducted a multicentric cross-sectional study in South India in May-June 2020, and found that the KAP scores related to COVID-19 were 82%, 92% and 86% respectively.^[25] They reported that patients older than 50 years and illiterate people had significantly lower scores. We did not find any significant difference with age; however, we also noted that the knowledge score was less in the uneducated. On comparison, we note that our overall scores for attitude (65.5% vs 92%, p<0.001) and practice (81.7% vs 86%, p=0.017) were significantly less whereas the knowledge scores were similar (83.1% vs 82%, p=0.968). This is probably because of the variations in the study period. Our study was conducted when lockdown relaxations were present and people were likely exhausted with the strict rules. It is understandable that following the safety protocols is easier in the short-term but to sustain in the long-term, needs strong motivation. Amalakanti et al. also assessed the KAP in relation to COVID-19 in Andhra Pradesh.^[26] This study comprised of

54% post-graduates whereas our study had only 9% which reflects their better knowledge scores (83.1% vs 94.4%, p<0.001).

The strength of the study lies in its prospective nature and we specifically included patients seeking glaucoma care. It was conducted just after the lockdown eased when vaccines were unavailable and pandemic fear was still present. However, not all consecutive patients who visited the glaucoma services were included for analysis and sample size was less compared other population-based studies. The use of a self-validated questionnaire may limit direct comparison with other such instruments, however, varying practices during different time periods of the pandemic mandated the use of a new questionnaire. Moreover we assessed the impact of COVID-19 on glaucoma care provision by comparing the presentations patterns with that of the previous year's data.

In conclusion, we noted that KAP in relation to COVID-19 was good. Additionally we noted that acute presentations forced the patients to seek care during the pandemic resulting in greater proportion of PAC, PACG, PXFG, neovascular glaucoma and other secondary glaucomas. The pandemic seems to have disrupted routine glaucoma care and introduced new barriers. With the emergence of new variants of COVID-19 in the recent times and from the lessons learnt from the pandemic, it is crucial to strengthen the primary eye care facilities. These facilities which are easily accessed by patients if equipped with fundus photography, portable perimetry along with tele-ophthalmology and artificial intelligence-based evaluations might help to mitigate the problems to a greater extent even beyond the pandemic.

Table 1: Diagnosis Of The Study Participants

Diagnosis	Number of eyes, n (%)		Overall n (%)	P value ^p
	New (n=62)	Review (n=430)		
Normal	4 (6.5)	20 (4.6)	24 (4.9)	0.515
Primary open angle glaucoma	9 (14.5)	112 (26.1)	121 (24.6)	0.048
Normal tension glaucoma	-	11 (2.6)	11 (2.2)	-
Primary angle closure	25 (40.3)	118 (27.4)	143 (29.1)	0.036
Primary angle closure glaucoma	-	37 (8.6)	37 (7.5)	-
Pseudo exfoliation glaucoma	5 (8.1)	18 (4.2)	23 (4.7)	0.175
Phacomorphic glaucoma	1 (1.6)	-	1 (0.2)	-
Phacolytic glaucoma	-	1 (0.2)	1 (0.2)	-
Neovascular glaucoma	1 (1.6)	1 (0.2)	2 (0.4)	0.092
Other secondary open angle glaucoma	2 (3.2)	19 (4.4)	21 (4.3)	0.661
Other secondary angle closure glaucoma	1 (1.6)	3 (0.7)	4 (0.8)	0.461
Disc suspect	5 (8.1)	36 (8.4)	41 (8.3)	0.936
Ocular hypertension	2 (3.2)	25 (5.8)	27 (5.5)	0.400
Others	7 (11.3)	29 (6.7)	36 (7.3)	0.193
Total	62 (100)	430 (100)	492 (100)	-

^p - Proportion test

Table 2: Responses For Questions Assessing The Knowledge About The Covid-19 Pandemic Among The Study Participants

Knowledge	Scoring (n=246), n (%)				
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Q1. Main symptoms of COVID-19 are cough, cold, fever, myalgia	-	-	16 (6.5)	91 (36.1)	139 (56.5)
Q2. Patient infected with COVID-19 can have no symptoms at all	1 (0.4)	1 (0.4)	59 (23.9)	102 (41.4)	83 (33.7)
Q3. Elderly patients with diabetes, hypertension and asthma are prone to develop severe infection	-	-	20 (8.1)	66 (26.8)	160 (65.0)

Q4. The COVID-19 virus spreads via respiratory droplets of infected individuals through the air during sneezing or coughing	-	1 (0.4)	11 (4.4)	64 (26)	170 (69.1)
Q5. If a patient does not have fever he/she cannot transmit the disease	30 (12.2)	20 (8.1)	64 (26)	64 (26)	68 (27.6)
Q6. Currently, there is definitive treatment for COVID-19	99 (40.2)	48 (19.5)	79 (32.1)	18 (7.3)	2 (0.8)
Q7. Quarantine period for COVID-19 is 2 days	168 (68.2)	45 (18.2)	25 (10.1)	6 (2.4)	2 (0.8)
Q8. Children and young adults do not need to take measures to prevent the infection by the COVID-19 virus	151 (61.3)	39 (15.8)	18 (7.3)	17 (6.1)	21 (8.5)
Q9. Wearing masks when leaving home is necessary to reduce the chances of getting infected with COVID-19 virus	2 (0.8)	1 (0.4)	-	52 (21.1)	191 (77.6)
Q10. Frequent hand washing is necessary to reduce the chances of getting infected with COVID-19 virus	-	-	-	57 (23.1)	189 (76.8)
Q11. Isolation of people who are infected with the COVID-19 are effective ways to reduce the spread of the virus	-	-	2 (0.8)	54 (21.9)	190 (77.2)
Q12. Sanitizing open places and practicing cleanliness can decrease the spread of COVID-19	-	-	1 (0.4)	69 (28.0)	176 (71.5)

For a correct statement, a score of 4 is given for every 'strongly agree' response, score of 3 is given for 'agree' response, score of 2 is given for 'neutral' response, score of 1 is given for 'disagree' response, score of 0 is given for 'strongly disagree' response. Statements in bold have reverse scoring.

Table 3: Responses For Questions Assessing The Patient's Attitude Towards Preventive Measures During The Covid-19 Pandemic Among The Study Participants

Attitude	Scoring (n=246), n (%)			
	Very difficult	Difficult	Easy	Very easy
Q1. Washing hands frequently with soap and water for at least 20 seconds or use an alcohol-based hand sanitizer (60%) is	-	19 (7.7)	132 (53.6)	95 (38.6)
Q2. Always wearing tight masks when stepping outside the home is	1 (0.4)	80 (32.5)	119 (48.3)	46 (18.7)
Q3. Avoiding crowdy places such as public transportations, religious places, Hospitals and markets is	2 (0.81)	100 (40.6)	115 (46.7)	29 (11.7)
Q4. Avoiding touching the face with unwashed hands is	2 (0.8)	105 (42.6)	120 (48.7)	19 (7.7)
Q5. Maintaining social distancing is	1 (0.4)	46 (18.7)	149 (60.5)	50 (20.3)

Q6. Staying at home to minimize the risk of infection is	-	1 7 (6.9)	123 (50.0)	106 (43)
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For 'very easy' response, a score of 3 is given, 'easy' response is scored 2, 'difficult' response is scored 1 and 'very difficult' response is given 0.

Table 4: Responses For Questions Assessing The Patient's Practices During The Covid-19 Pandemic Among The Study Participants

Practice	Scoring (n=246), n (%)				
	Never	Rarely	Sometimes	Often	Always
Q1. In recent times, I still visit crowded places like markets, religious places, hospitals and use public transportation	66 (26.8)	112 (45.5)	50 (20.3)	14 (5.6)	4 (1.6)
Q2. In recent days, I have worn mask regularly while stepping out from home	3 (1.2)	5 (2.0)	7 (2.8)	24 (9.7)	207 (84.1)
Q3. In recent times, I have practiced regular hand washing	1 (0.4)	1 (0.4)	6 (2.4)	52 (21.1)	186 (75.6)
Q4. The mask that I wear covers nose and mouth	1 (0.4)	4 (1.6)	13 (5.2)	47 (19.1)	181 (73.5)
Q5. While talking to someone, I pull my mask down to the neck with my hands	147 (59.7)	22 (8.9)	40 (16.2)	23 (9.3)	14 (5.6)
Q6. During most of the times, I remove the mask by holding the strap without touching the central part	7 (2.8)	11 (4.4)	22 (8.9)	35 (14.2)	171 (69.5)
Q7. I cover my mouth and nose during a cough or sneeze with my elbow or tissue	7 (2.8)	10 (4.0)	87 (35.3)	42 (17.0)	100 (40.6)
Q8. Do you touch your eyes, nose, and mouth frequently with unwashed hands?	63 (25.6)	43 (17.4)	25 (10.1)	109 (44.3)	6 (2.4)
Q9. Do you clean, disinfect frequently touched objects and surfaces?	7 (2.8)	6 (2.4)	11 (4.4)	68 (27.6)	154 (62.6)
Q10. Will you stay home completely when you are sick due to common cold-like infections?	2 (0.8)	-	6 (2)	59 (23.98)	179 (72)

For every 'never' response, a score of 0 is given, 'rarely' response is scored 1, 'sometimes' is scored 2, 'often' is scored 3 and 'always' is scored 4. Statements in bold are unpreferred practises and have reverse scoring.

Table 5: Comparison Of All Diagnosis During The Study Period With The Corresponding Time Period In 2019; October-december 2019 And 2020.

Diagnosis	2019	2020	Difference	P value ^p
Primary open angle glaucoma	1679 (19.6%)	1036 (16.9%)	-2.7%	<0.001
Disc suspect	1210 (14.2%)	775 (12.7%)	-1.5%	0.001
Primary angle closure suspect	1038 (12.1%)	722 (11.8%)	-0.3%	0.581
Primary angle closure glaucoma	691 (8.1%)	594 (9.7%)	1.6%	0.001
Ocular hypertension	639 (7.5%)	492 (8.1%)	0.6%	0.18
Secondary glaucoma (unspecified)	541 (6.3%)	429 (7.0%)	0.7%	0.092
Post Trabeculectomy	475 (5.6%)	272 (4.5%)	-1.1%	0.003

Primary angle closure	394 (4.6%)	331 (5.4%)	0.8%	0.027
Absolute glaucoma	368 (4.3%)	261 (4.3%)	0	>0.99
Pseudoexfoliation glaucoma	283 (3.3%)	259 (4.2%)	0.9%	0.004
Normal tension glaucoma	311 (3.6%)	212 (3.5%)	-0.1%	0.747
Pseudophakic glaucoma	242 (2.8%)	138 (2.3%)	-0.5%	0.060
Neovascular glaucoma	115 (1.3%)	143 (2.3%)	1%	<0.001
Secondary angle closure	66 (0.8%)	92 (1.5%)	0.7%	<0.001
Secondary open angle glaucoma	59 (0.7%)	63 (1.0%)	0.3%	0.048
Juvenile glaucoma	63 (0.7%)	57 (0.9%)	0.2%	0.176
Secondary angle closure glaucoma	48 (0.6%)	35 (0.6%)	0	>0.99
Steroid responder glaucoma	76 (0.9%)	6 (0.1%)	-0.8%	<0.001
Traumatic glaucoma	47 (0.5%)	29 (0.5%)	0	>0.99
Aphakic glaucoma	35 (0.4%)	33 (0.5%)	0.1%	0.368
Phacolytic glaucoma	32 (0.4%)	15 (0.2%)	-0.2%	0.034
Congenital glaucoma	23 (0.3%)	21 (0.3%)	0	>0.99
Angle recession glaucoma	-	35 (0.6%)	-	-
Pigmentary glaucoma	24 (0.3%)	6 (0.1%)	-0.2%	0.01
Phacomorphic glaucoma	14 (0.2%)	15 (0.2%)	0	>0.99
Uveitic glaucoma	22 (0.3%)	4 (0.1%)	-0.2%	0.01
Retino-choroidal Coloboma	9 (0.1%)	14 (0.2%)	0.1%	0.112
Acute angle closure glaucoma	13 (0.1%)	8 (0.1%)	0	>0.99
Others	31 (0.4%)	12 (0.2%)	-0.2%	0.034
Total	8548 (100%)	6109 (100%)		

^p - Proportion test; Boldface indicates statistical significance

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