Original Research Article

Pattern of ocular comorbidities in patients presenting with cataract in a tertiary eye care hospital

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Abstract

Introduction: Cataract is a slowly progressing eye condition marked by clouding of the normally clear lens of the eye or its capsule that prevents light from entering the eye. Ocular comorbidities are collections of eye conditions that exist simultaneously, regardless of their etiopathogenic relationship. Ocular comorbidities are frequently associated with reduced quality of life and disabilities caused by visual impairment. **Aim:** To determine the pattern of ocular comorbidities in patients presenting with cataract in a tertiary eye care hospital. **Material and methods:** This hospital based observational study was conducted in the OPD ofthe Department of Ophthalmology, Government Medical College Jammu over a period of 1 year from November 2021 to October 2022. A total of 500 patients were included in this study. Data was collected using a clinical proforma and analysed using SPSS inc., v.16. **Results:** The present study found majority of the participants 195(39.0%) in the age group of 61-70 years with female to male ratio of 1.15:1. Diabetic retinopathy was the most commonly associated ocular comorbidity seen in 5.5% of cataract patients. (5.4% R/E and 5.6% L/E). **Conclusion:** Adequate control of coexisting ocular diseases is of utmost importance in order to avoid any intraoperative or postoperative problems, anticipating visual outcomes and improving visual results postoperatively by taking necessary steps wherever possible.

Keywords: Ocular comorbidity, Cataract, Vision, Pattern and Illness.

Introduction

Ocular comorbidities are combinations of eye disorders that exist concurrently, regardless of how their etiopathogenic relationships relate to one another[1].

Blindness or vision impairment is a serious health concern around the world, and it has been estimated that 12 million people in India are blind, 7.75 million of them are due to cataracts[2].

A cataract is a slowly progressing eye illness that is characterised by clouding of the clear lens of the eye or its capsule, which prevents light from entering the eye and is a major global cause of blindness. The only effective method of treating cataract is by surgical removal of the cataractous lens. While cataract only accounts for 5% of blindness in developed countries, it is the most common cause of blindness in middle- and low-income nations, accounting for 50% of all cases of blindness in these regions[3].

Additional ophthalmic issues that can affect morbidity and vision may arise in patients with ocular diseases. Ocular comorbidities are frequently linked to visual impairment-related disability and a lower quality of life[4].

Thus, the present study was conducted to determine the pattern of ocular comorbidities in cataract patients in the OPD of department of ophthalmology, government medical college, Jammu.

Material and methods

This hospital based observational study was conducted in the OPD OF Department of Ophthalmology, Government Medical College Jammu over a period of 1 year from November 2021 to October 2022 after due approval from IEC vide letter no. IEC/GMC/2021/641. A total of 500 patients were included in the study.

Inclusion criteria

The study included patients with cataract and ocular comorbidities.

Exclusion criteria

Patients with congenital and traumatic cataract were excluded from the study.

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A detailed history was taken and ocular examination (distance visual acuity analysis using Snellen's visual acuity chart, intraocular pressure (IOP) measurement using non-contact tonometer, slit lamp examination to evaluate anterior segment and grade the cataract, fundus examination using a 90 D non-contact slit lamp bio microscopy, indirect ophthalmoscopy on a fully dilated pupil and USG B-Scan in patients with hazy media) was done for all the patients.

The data was collected using a clinical proforma, recorded in Microsoft Excel sheet and the statistical analysis was done using SPSS inc., v.16.

Results and observations

The present study evaluated a total of 500 patients to assess the pattern of ocular co morbidities in patients presenting with cataract.

In the present study most 195(39%) of the study participants were falling in the age group of 61-70 years (Table 1).

Table 1: Age distribution of patients(N=500)

Age Group (years)	Number(N)	Percentage (%)
Up to 50 years	11	2.2
51-60 years	116	23.2
61-70 years	195	39
71-80 years	133	26.6
81-90 years	44	8.8
>90 years	1	0.2

It was observed in our study that there was female predominance with female to male ratio being 1.15:1(Figure 1)

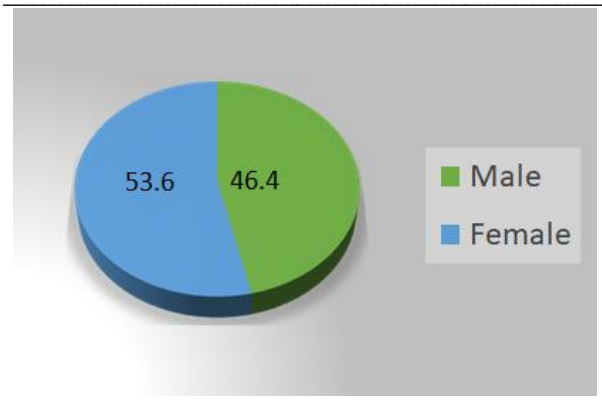

Figure 1: Gender distribution of patients

Table 2: Pre-Op Best Corrected Visual Acuity (BCVA) in right eyes (R/E) of patients

Pre-Op BCVA (R/E)	Number(N)	Percentage (%)
6/6 - 6/9	26	5.2
6/12 - 6/18	72	14.4
6/24 - 6/36	79	15.8
6/60 - 3/60	138	27.6
2/60 - 1/60	68	13.6
FCCF	4	0.8
HMCF	14	2.8
PL, PR +	99	19.8

Table 3: Pre-Op Best Corrected Visual Acuity (BCVA) in left eyes (L/E) of patients.

Pre-Op BCVA (L/E)	Number(N)	Percentage (%)
6/6 - 6/9	30	6
6/12 - 6/18	74	14.8
6/24 - 6/36	64	12.8
6/60 - 3/60	147	29.4
2/60 - 1/60	71	14.2
FCCF	5	1
HMCF	14	2.8
PL, PR +	95	19

In this study, the pre-op BCVA of both eyes was noted. 6/60-3/60 BCVA was reported in most (27.6%) patients in right eyes (Table 2) and 6/60-3/60 BCVA was reported in majority patients (29.4%) in their left eyes (Table 3).

Table 4: Distribution of patients according to associated ocular comorbidities

Ocular comorbidities	Right eye		Left eye	
	No.	%	No.	%
None	418	83.6	424	84.8
Diabetic Retinopathy	28	5.6	27	5.4
Pterygium	24	4.8	21	4.2
PEX	10	2	10	2
POAG	9	1.8	7	1.4
Dry ARMD	4	0.8	4	0.8
Hypertensive Retinopathy	4	0.8	4	0.8
Myopic degeneration	3	0.6	4	0.8

In our study majority (84.2%) participants reported no ocular co morbidity in their eyes (Table 4). Diabetic retinopathy was the most common associated ocular comorbidity seen in 5.5% of cataract patients (Table 4).

Discussion

In our study most participants 195(39%) were found in the age group of 61-70 years with female to male ratio being 1.15:1 similar to study conducted by Riley AF et al and Liu Y et al[5,6].

It was found that in most patient's pre-op BCVA was between 6/60-3/60 accounting for 28.5% of patients (27.6 % R/E and 29.4% L/E) in accordance with previous studies[7,8].

In our study out of 500 study subjects 418 (83.6%) participants reported no ocular co morbidity in their right eyes whereas 424 (84.8%) participants reported no ocular co morbidity in their left eyes. Diabetic retinopathy was the most common associated ocular comorbidity seen in 5.5% of cataract patients. (5.4% R/E and 5.6% L/E). These outcomes are in accordance with the study performed by Yong GY et al[9].

This study has limitations as it included only the patients attending Eye OPD.We need more such studies on a bigger scale with varied population and sample size to determine the pattern of ocular comorbidities in patients presenting with cataract.

Conclusion

Our study concluded that there should be more focus on optimising co-morbidities pre-operatively in patients undergoing cataract surgery. Adequate control of the coexisting ocular diseases is of utmost importance in order to prevent any intraoperative, post operative complications, predicting visual outcome and enhancing visual results post operatively by taking adequate measures wherever possible. Such data will help to develop effective health programmes to reduce burden of cataract related blindness.

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