



Original Research Article

Study on ocular morbidity in eye camp patients in rural medical hospital

Pooja H V¹, H T Venkate Gowda¹, Jeevitha R^{1,*}¹Dept. of Ophthalmology, Adichunchangiri Institute of Medical Science, Adichunchangiri University, B G Nagara, Mandya, Karnataka, India

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ABSTRACT

Aims: To determine the prevalence and pattern of the different types of ocular morbidities in elderly eye camp patients.**Materials and Methods:** Cross sectional observational study from July 2018 to June 2019, in eye camp patients aged 40-80 years attending Ophthalmology Department with a history of ocular diseases underwent routine eye examination.

Data was entered in MS Excel 2016 and analysed using SPSS 17.0 by using descriptive statistics like frequency and percentage.

Results: Of 2912 people, males were 1759 and females were 1153. Most common ocular morbidity was Cataract 1967 (67.54%) and Cataract associated with comorbidities were 391 (13.42%), followed by glaucoma 152 (5.2%), hypertensive 92 (3.1%) and diabetic 84 (2.8%) retinopathy, blepharitis 78 (2.6%), pterygium 69 (2.3%), Chronic dacryocystitis 41 (1.4%), refractive error 12 (0.4%), Age related macular degeneration ten (0.3%). Less common were phacotoxic uveitis eight (0.2%), corneal opacity five (0.1%) and Retinitis Pigmentosa three (0.1%).**Conclusions:** Cataract, glaucoma were major ocular diseases seen in the study. Efforts aimed at reducing high prevalence of treatable or preventable morbidities such as cataract, glaucoma.© This is an open access article distributed under the terms of the Creative Commons Attribution License (<https://creativecommons.org/licenses/by/4.0/>) which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

1. Introduction

Blindness is a worldwide problem with a significant social and economic impact on society. The WHO has defined blindness as a visual acuity worse than 3/60 in the better eye with best correction. It is estimated that number of visually disabled people are around 272.4 million and of them nearly 42.7 million are blind globally.¹

Eighty-five percent of moderate to severe visual impairment and 80% of blindness are avoided by prevention, treatment, or cure.² Globally, the leading causes of blindness, in order of frequency are: Cataract, uncorrected refractive errors, Glaucoma, Age-related macular degeneration. Other major causes include Corneal opacities, Diabetic retinopathy, Blinding Trachoma.²

National programme for Control of Blindness was launched in the year 1976 with the goal to reduce the prevalence of blindness from 1.4% to 0.3%. Target for the 10th plan was to reduce prevalence of blindness to 0.8% by 2007 prevalence of Blindness is 1%. During the 11th plan, the scheme aims in controlling cataract blindness and also initiate activities to prevent and control blindness due to other causes.³

Due to lack of eye care professionals, access to health care by elderly population in remote rural areas is often compromised.

Hence the present study is carried out to know the prevalence and pattern of common ocular morbidity (refractive error, cataract, diabetic retinopathy, chronic dacryocystitis, age related macular degeneration, vascular abnormalities, optic atrophy) in eye camp patients in a rural hospital.

* Corresponding author.

E-mail address: jeevi1802@gmail.com (Jeevitha R).

2. Materials and Methods

This hospital-based cross-sectional study was conducted at Department of Ophthalmology. A total of 2912 eye camp patients aged 40 to 80 years attending Ophthalmology department with a history of ocular diseases were evaluated from July 2018 to June 2019. After obtaining approval from Institutional Ethics committee, written informed consent from the patients were taken.

Visual acuity, detailed clinical history, relevant past and family history, general physical examination, detailed ocular examination - Intraocular pressure, Slit lamp examination, Fundus examination, keratometry, A-scan, B-scan and appropriate laboratory analysis were done. Patient were treated as protocol.

2.1. Inclusion criteria

Aged between 40-80 years, anterior segment and posterior segment morbidities.

2.2. Statistical analysis

Data was entered in MS Excel 2016 and analysed using SPSS 17.0 by using descriptive statistics like frequency and percentage.

3. Results

Out of 2912 eye camp patients, between age group of 40-80years, Males were 1759 (60.4%) and Female were 1153 (39.59%).

Most common ocular morbidity was Cataract 1967 (67.54%) and Cataract associated with comorbidity (Hypertension, Diabetes) were 391 (13.42%) followed by glaucoma 152 (5.2%), Hypertensive 92 (3.1%) and Diabetic 84 (2.8%) retinopathy, blepharitis 78 (2.6%), pterygium 69 (2.3%), Chronic dacryocystitis 41 (1.4%) [Table 1].

Less common ocular morbidity were refractive error 13 (0.4%), age related macular degeneration ten (0.3%), Phacotoxic uveitis eight (0.2%), corneal opacity five (0.1%) and Retinitis pigmentosa three (0.1%) [Table 2].

4. Discussion

Our study aimed to determine the prevalence and pattern of the different types of ocular morbidity in eye camp patients.

Overall, Most common ocular morbidity was Cataract 1967 (67.54%) and Cataract associated with comorbidity (like hypertension, diabetes) were 391 (13.42%) followed by glaucoma 152 (5.2%), hypertensive 92 (3.1%) and diabetic 84 (2.8%) retinopathy, blepharitis 78 (2.6%), pterygium 69 (2.3%), chronic dacryocystitis 41 (1.4%).

Priti Singh et al., showed in a study conducted on 900 patients, there was high prevalence of cataract 58 (42.9%) followed by refractive errors 50 (37.03%), dry eye six (4.4%) and retinopathies 12(8.8%).⁴ Vibha Florence

Table 1: Frequency and percentage of common ocular morbidity in eye camp patients

Ocular morbidities	Number[Out of 2912 patients]	Percentage [Out of 100%]
Cataract	1967	67.54
Cataract with comorbidities	391	13.42
Glaucoma	152	5.2
Hypertensive retinopathy	92	3.1
Diabetic retinopathy	84	2.8
Blepharitis	78	2.6
Pterygium	69	2.3
Chronic dacryocystitis	41	1.4

Table 2: Frequency and percentage of least common ocular morbidity in eye camp patients

Ocular morbidities	Number[Out of 2912 patients]	Percentage[out of 100%]
Refractive error	13	0.4
Age related macular degeneration	10	0.3
Phacotoxic uveitis	8	0.2
Corneal opacity	5	0.1
Retinitis pigmentosa	3	0.1

Baldev et al., showed in study conducted on 900 patients, most common cause of blindness was cataract (36.1%) followed by corneal opacity (30.5%), glaucoma (11.1%), refractive error (8.3%).⁵ Jitendrakumar et al., showed high prevalence of refractive errors (43.4%) and cataract (41%) followed by pterygium (18.8%), aphakia (14.2%) glaucoma (3.7%) and corneal opacities (3.2%).⁶ Anupama Kumar et al., showed in study conducted on 812 people, prevalence of ocular morbidity was 41.3%, with 88.8% elderly affected more than 65 years and most common ocular morbidity was myopia (14.8%) followed by cataract (14.3%), hypermetropia (12.8%).⁷ Sadana Adala et al., showed majority of the patients belonged to 60 years & above and overall, the common morbid conditions found in this study were cataract (60.2%), refractive errors (14.5%) and allergic conjunctivitis (7.1%).⁸ Venkataramana et al., showed in a study conducted on 1181 population prevalence of ocular morbidity was 13.9%, most common ocular morbidity were refractive error (6.4%) in 18-45 years age group followed by cataract (4%), corneal blindness (3%) in 46-60 years age group.⁹ Singh et al., conducted a cross-sectional study on 9736 people, most common ocular morbidity were Cataract (41.89%) followed by uncorrected refractive error (21.59%), glaucoma (4.83%) among 931 cases identified with eye diseases.¹⁰ Thus, cataract was

found to be the common ocular morbid condition in elderly patients. Maurya et al reported commonest ocular morbidities as a refractive errors (39.78%) followed by conjunctivitis (30.64%), blepharitis (16.85%), computer vision syndrome (10.73%), sty (8.68%), ocular injuries (8.16%) amongst university students.¹¹

5. Conclusion

Blindness is still one of the major public health problems. The results of this study suggest that cataract remains the main cause of ocular morbidity followed by Glaucoma and retinopathies. Efforts were aimed to reduce high prevalence of treatable ocular morbidity such as cataract, glaucoma in elderly rural patients. Hence, awareness programs for cataract surgery, detection of glaucoma, control of hypertension and DM, correction of refractive errors need to be targeted to further reduce the burden of ocular morbidity.

6. Source of Funding

None.

7. Conflict of Interest

The authors declare that there is no conflict of interest.

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Author biography

Pooja H V, Assistant Professor

H T Venkate Gowda, Professor and HOD

Jeevitha R, 3rd Year Junior Resident

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