

Pattern of Ocular Diseases in Patients Attending To A Tertiary Eye Care Center In Southern Odisha

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Abstract: A retrospective review of 2348 patients were done who had attended to the OPD of ophthalmology department, MKCG Medical College Berhampur over a period of 1.5 months. The needed informations were taken from patients medical records. Out of 2348 patients 1364 (58.1%) were male and 984 (41.9%) were females with male to female ratio of 1.38:1. Refractive error (39.26%) was found to be the commonest ocular morbidity followed by conjunctival disorders (15.33%), cataract (14.6%), corneal disorders (10.52%), posterior segment disorders (5%), miscellaneous (4.77%), lid disorders (4%), trauma (3%), glaucoma (1.75%), and squint (1.15%). The study shows exceeding number of male patients than females which implies that females are less aware about their health problems and also ignorance and education is an important causative factors. The leading causes of ocular morbidity in our study were refractive error, conjunctival disorder, cataract and corneal disorders.

Key words: Ocular diseases, Refractive error, Cataract, Conjunctival disorder

Conflict of interest: Nil

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I. Introduction

Ocular diseases constitute one of the commonest problems presenting to the general practice clinic (10-21%) and could have significant socioeconomic consequences¹. Study of ocular diseases are important because some are just causes of ocular morbidity while others invariably lead to blindness. Some conditions like refractive errors and cataract are treatable while measles and vitamin A deficiencies are largely preventable².

Many people have eye disorders that result in visual loss. Routine examinations are useful in detecting diseases in which symptoms are few or absent. Increased awareness through education can reduce the burden of eye diseases in a population³. There are some ocular disorders which can lead to permanent visual loss with out appropriate intervention. Early diagnosis and treatment can often preserve sight and correct vision-threatening gross eye disorders⁴. The causes of blindness and low vision differ in different parts of the world. So the requirement of eye services also varies according to the need of the native population. So to build a better infrastructure for eye care facilities, studies showing pattern of ocular diseases are needed. A study in Pakistan found prevalence of 'non-vision impairing conditions' (NVIC) to be 30.6% including presbyopia. After excluding presbyopia, the prevalence of NVIC was 14.6% with conjunctival disorders (e.g. allergic conjunctivitis) the leading cause⁵. Many other studies conducted in the developing world had also shown that uncorrected refractive errors and presbyopia as the leading causes of ocular morbidity. A clear knowledge about the pattern of eye diseases will form a framework which can be utilized to prevent or treat the blinding diseases. This will reduce the needless blindness and visual impairment in the community. Keeping this in mind we conducted this retrospective study to know the pattern of eye diseases in southern odisha.

II. Materials and methods

This is a retrospective review of 2348 patients who had attended the OPD of dept. of Ophthalmology, MKCG Medical College Berhampur, Odisha over a period of 1.5 months. The needed informations were obtained from patients' medical records. The data analyzed were: name, age, sex, registration number, ophthalmic history, visual acuity, examination of eye movements, and anterior and posterior ocular segments.

III. Results

A total of 2348 patients were included in our study, out of which 1364 (58.1%) were male and 984 (41.9%) were females with male to female ratio 1.38:1. Refractive error (39.26%) was found as commonest ocular morbidity in our study followed by Conjunctival disorders (conjunctivitis, pterygium, pingui-cula, sub conjunctival haemorrhages) (15.33%), cataract (14.6%), corneal disorders (keratitis, opacities, degenerations)

(10.52%), posterior segment disorders (diabetic retinopathy, ARMD, retinal detachment) (5%), miscellaneous (4.77%), lid disorders(chalazion,entropion, ectropion, ptosis, blepharitis) (4%), trauma (lid injury, ocular foreign body, globe rupture, traumatic cataract, traumatic glaucoma) (3%), glaucoma (1.75%), and squint (1.15%). The most common age group presenting with eye disorders in our study were between 21 to 30 years (19.55%) with male(19.5%) and female (19.61%) and the least common age group were between 0 to 10 years (7.05%) with male (7.18%) and female (6.81%).Table II, shows age and gender distribution of patients having ocular diseases.The lid disorders in our study were chalazion (35.79%), entropion (18.94%), tumors (10.53%), ptosis (9.47%), ectropion (5.26%), and others (20%). Table III shows gender distribution of lid related disorders. The trauma related disorders presented to our hospital were lid injury (30.38%), traumatic cataract (18.9%), rupture globe (15.2%), traumatic glaucoma (10.1%), intraocular foreign bodies (7.6%), and others (17.7%). Out of the posterior segment disorders retinal vascular diseases (39.3%), ARMD (27%), retinal detachment (10.6%) and others (22.9%). Table IV and V shows gender distribution of trauma related disorders and posterior segment disorders respectively.

TABLE I. Pattern of ocular disorders

DISEASES	NO. OF PATIENTS	PERCENTAGE
Refractive error	922	39.26
Cataract	343	14.6
Conjunctival disorders	360	15.33
Corneal disorders	247	10.52
Lid disorders	95	4
Trauma related conditions	79	3
Posterior segment diseases	122	5
Glaucoma	41	1.75
Squint	27	1.15
Miscellaneous	112	4.77

TABLE II. Age and gender distribution of patients

AGE IN YRS	NO. OF MALE	PERCENTAGE	NO. OF FEMALE	PERCENTAGE
< 10	98	7.18	67	6.81
10-20	194	14.22	157	15.95
21-30	266	19.5	193	19.61
31-40	199	14.59	162	16.46
41-50	211	15.47	158	16.05
51-60	180	13.2	139	14.13
>61	216	15.83	108	10.97

TABLE III. Gender distribution of patients with lid related disorders

LID RELATED DISORDERS	MALE	FEMALE	TOTAL	PERCENTAGE
Chalazion/ stye	19	15	34	35.79
Entropion	10	8	18	18.94
Ptosis	6	3	9	9.47
Ectropion	2	3	5	5.26
Tumors	7	3	10	10.53
Others	12	7	19	20

TABLE IV. Gender distribution of patients having trauma related disorders

TRAUMA RELATED DISEASES	MALE	FEMALE	TOTAL	PERCENTAGE
Lid injury	13	11	24	30.38
Ocular foreign body	4	2	6	7.6
Rupture globe	10	2	12	15.2
Traumatic cataract	8	7	15	18.9
Traumatic glaucoma	6	2	8	10.12
Others	6	8	14	17.72

TABLE V. Gender distribution of patients having posterior segment disorders

POSTERIOR SEGMENT DISEASES	MALE	FEMALE	TOTAL	PERCENTAGE
Retinal vascular diseases	28	20	48	39.3
ARMD	18	15	33	27
Retinal detachment	8	5	13	10.6
Others	18	10	28	22.9

IV. Discussion

Refractive error (39.26%) was found to be the commonest ocular morbidity in our study. Study by Haq et al reported that refractive error was present in 25%.⁶ Study by Singh et al in rural setting reported that prevalence of refractive error to be 40.8%.⁷ Conjunctival disorder (15.33%) was found to be the second most frequent eye disorder in our study. A study in Nepal found refractive error in 2.36% of their cohort. The Nepalese work found conjunctivitis as the second most frequent eye problem (1.71%).⁸ Another Nepalese⁹ study reported refractive error as the commonest disorder (22.5%). This was followed by age-related cataract (17.5%) and extraocular diseases (14.9%). Olukorede reported allergic conjunctivitis as a most common cause in a hospital based study¹⁰. Cataract (14.6%) was third most common ocular morbidity in our study. Adeoye and Omotoye however reported higher figures of 26% for cataract in their study.¹¹ Haq et al also reported that cataract prevalence was 40.4%. Other eye diseases found in our study were corneal disorders (10.52%), posterior segment disorders (5%), miscellaneous (4.77%), lid disorders (4%), trauma (3%), glaucoma (1.75%), and squint (1.15%). A study conducted in Eye Clinic at Imam Khomeini Hospital of Urmia, which showed the following results: cataract 104 (20.8%), refractive errors 96 cases (19.2%), conjunctivitis 50 cases (10%), eyelid disease 46 cases (9.2%), pterygium 28 cases (5.6%), glaucoma 13 cases (2.6%), cornea disease 12 cases (2.4%), amblyopia 5 cases (1%), dry eye 4 cases (0.8%), strabismus 2 cases (0.4%).¹² In our study 41.52% were between 0 to 30 years of age, 44.67% were between 31 to 60 years of age and 14% were above 61 years of age. Similar to our result a study done where they found 42% within the 0-30 age group, 44% within the 31-60 age groups and 14% between 61-90.¹³

V. Conclusion

The leading causes of ocular diseases in our study were refractive error, conjunctivitis, cataract and corneal disorders. The high prevalence of refractive errors and cataracts shows that hospital still requires an improved infrastructure with spectacle provision to the patients and mobile eye care units to collect cataract patients from rural areas for operating them in hospital. More male attendance than female shows that females are less aware about health problems. So female education is needed to avail them better health care facilities.

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