ORIGINAL RESEARCH PAPER

Ophthalmology

PREVALENCE OF OCULAR MORBIDITIES IN RURAL POPULATION ATTENDING OPHTHALMOLOGY OPD IN A TERTIARY CARE HOSPITAL KANCHEEPURAM DISTRICT TAMILNADU

KEY WORDS: Ocular diseases, Refractive error, Cataract, Conjunctivial disorder

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ABSTRACT

A retrospective review of 8162 patients were done who had attended to the OPD of ophthalmology department,KIMS Madhuranthagam, over a period of 4 months.The needed informations were taken from patients medical records. Out of 8162 patients 4892 (59.9%) were male and 3270(40.6%) were females with male to female ratio of 1.49:1 .Refractive error (35.53%) was found to be the commonest ocular morbidity followed by cataract (22.05%) conjunctival disorders (19.06%) corneal disorders (04.09%) posterior segment disorders (4.28%) miscellaneous (4.41%) lid disorders (1.86%) trauma (2.45%) glaucoma (3.67%) and squint (1.22%). 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, cataract conjunctival disorder, and corneal disorders.

1. INTRODUCTION

Ocular morbidities can have a serious impact on quality of life in rural population.

Preventable blindness is often due to factors such as poverty,literacy and health care system.

Ocular diseases constitute one of the commonest problems, presenting to the general practice clinic(10-21%) and could have significant socioeconomic consequences[1]. 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 meales and vitamin A deficiencies are largely preventable[2]. 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 population[3]. There are some ocular disorders which can lead to permanent visual loss without appropriate intervention. Early diagnosis and treatment can often preserve sight and correct vision-threatening gross eye disorders[4]. 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 cause[5]. 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 Kancheepuram District .

II. MATERIALS AND METHODS

This is a retrospective review of 8162 patients who had attended the OPD of dept. of ophthalmology, Karpaga Vinayaga Medical college Kancheepuram District,Tamilnadu over a period of 4 months, from September 2019 to December 2019 The IEC Approval obtained from KIMS . The needed informations were obtained from patients' medical records. The datas analyzed were name, sex, registration number, ophthalmic history, visual acuity, examination of eye movements,anterior and posterior ocular segments.

III. RESULTS

A total of 8162 patients were included in our study, out of which 4892(59.9%) were male and 3270(40.6%) were females with male to female ratio 1.49:1. Refractive error (35.53%) was found as commonest ocular morbidity in our study followed by cataract (22.05%), Conjunctival disorders (conjunctivitis, pterygium, pinguicula, pinguicula, sub conjunctival haemorrhages) (19.6%), corneal disorders(keratitis, opacities, degenerations) (4.9%) posterior segment disorders (diabetic retinopathy, ARMD, retinal detachment) (4.27%) miscellaneous (4.41%), lid disorders (chalazion, entropion, ectropion, ptosis, blepharitis) (1.86%) trauma (lid injury, ocular foreign body, globe rupture, traumatic cataract, traumatic glaucoma) (2.45%) glaucoma (3.67%) and squint (1.22%). The most common age group presenting with eye disorders in our study were between 21 to 30 years with male (12.26%) and female (17.73%) and the least common age group were between 10 to 20 years (8.17%) with male and female (13.76%). Table II, shows age and gender distribution of patients having ocular diseases. The lid disorders in our study were chalazion (22.36%) entropion (1.84%) tumors (6.57%) ptosis (32.23%) ectropion (1.84%) and others (23.68%).Table III shows gender distribution of lid related disorders . The trauma related disorders presented to our hospital were lid injury (12%) traumatic cataract (7.5%) repture globe (8.5%) traumatic glaucoma (4%) ocular foreign bodies (30%) and others (38%) . Out of the posterior segment disorders retinal vascular diseases (25.71%) ARMD(31.42%) retinal detachment (8.57%) and others (34.28%). 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	2900	35.53
Cataract	1800	22.05
Conjunctival disorders	1600	19.6
Corneal disorders	400	4.9
Lid disorders	152	1.86
Trauma related conditions	200	2.45
Posterior segment diseases	350	4.28
Glaucoma	300	3.67
Squint	100	1.22
Miscellaneous	360	4.41

Table II Age And Gender Distribution Of Patients

AGE IN YRS	NO. OF MALE	PERCENTAGE	NO.OF FEMALE	PERCENTAGE
<10	400	12.26	300	9.17
10-20	600	8.17	450	13.76
21-30	600	12.26	580	17.73

31-40	700	14.36	440	13.45
41-50	892	18.23	540	16.51
51-60	800	16.35	560	17.12
>61	900	18.39	400	12.23

Table III Gender Distribution Of Patients With Lid Related Disorders

LID RELATED DISORDERS	MALE	FEMALE	TOTAL	PERCENTAGE
Chalazion / style	19	15	34	22.36
Entropion	10	8	18	11.84
Ptosis	26	23	49	32.23
Ectropion	2	3	5	3.28
Tumors	7	3	10	6.57
Others	22	14	36	23.68

Table IV Gender Distribution Of Patients Having Trauma Related Disorders

TRAUMA RELATED DISEASES	MALE	FEMALE	TOTAL	PERCENTAGE
Lid injury	13	11	24	12
Ocular foreign body	40	20	60	30
Rupture globe	10	7	17	8.5
Traumatic cataract	8	7	15	7.5
Traumatic glaucoma	6	2	8	4
Others	40	36	76	3.8

Table V Gender Distribution Of Patients Having Posterior Segment Disorders

POSTERIOR SEGMENT DISEASES	MALE	FEMALE	TOTAL	PERCENTAGE
Retinal vascular diseases	50	40	90	25.71
ARMD	60	50	110	31.42
Retinal detachment	15	15	30	8.57
Others	60	60	120	34.28

IV. DISCUSSION

Refractive error (35.53%) was found to be the commonest ocular morbidity in our study. Study by Haqet 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 40.87% [7]. Cataract (22.05%) 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 conjunctives 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 study[10]. Conjunctival disorder (19.6%) 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 21.7% in their study. Study by singh et all stated that cataract prevalence was 40.4%. Other eye diseases found in our study were corneal disorders (4.9%) posterior segment disorders (4.28%) miscellaneous (4.41%) lid disorders (1.86%) trauma (2.45%) glaucoma (3.67%) and squint (1.22%). A study contacted in Eyeclinic 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 33.44% were between 0 to 30 years of age 48.17% were between 31 to 60 years of age and 15.9% 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, cataract,conjunctival disorders 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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