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Analysis of Causes of Visually Handicap Amongst Patients Attending Outpatient Department For Visual Handicap Certification at Department of Ophthalmology, P.d.u.govt.medical.college, Rajkot,Gujarat,India

OPTHALMOLOGY

KEYWORDS : Visually Handicap, demographical, etiological, age, sex and epidemiological, distribution of blindness , Rajkot, blindness certification.

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ABSTRACT

***AIM**: To identify various statistical aspects of demographical, etiological, age, sex and epidemiological distribution of blindness among patients attending OPD at department of ophthalmology, P.D.U.Govt.Medical College, Rajkot, Gujarat, india for blindness certification.*

***MATERIAL AND METHOD**: In this study, datas of 477 patients attending OPD at department of ophthalmology, P.D.U.Govt.Medical College, Rajkot from January 2015 to June 2016 for blindness certificate were analysed retrospectively.*

***RESULT AND ANALYSIS**: Among 477 patients, there were 352 male and 125 female patients. Amongst 477, about 357 (74.84%) patients were totally blind(100% disability) & 64 (13%) patients had 30% disability. The causes of blindness were avoidable in 30.5% (diabetic retinopathy, Glaucomatous Optic atrophy, corneal opacity, Traumatic eye injury) and not preventable in 69.5% (retinitis pigmentosa , congenital ocular malformations , optic atrophy , hereditary diseases, and age-related macular degeneration) patients.*

***CONCLUSION**: There will be a variation in the prevalence of leading causes of certification for blindness, from one geographical area to another. If accurate cause is identified, then the necessary preventive measures can be taken.*

INTRODUCTION:

India is now home to the world's largest number of blind people. Of the 37 million people across the globe who are blind, over 15 million are from India. What's worse, 75% of these are cases of avoidable blindness, thanks to the country's acute shortage of optometrists and donated eyes for the treatment of corneal blindness. While India needs 40,000 optometrists, it has only 8,000. On the other hand, while India needs 2.5 lakh donated eyes every year, the country's 109 eye banks (five in Delhi) manage to collect a maximum of just 25,000 eyes, 30% of which can't be used. India has 12,000 ophthalmologists who have no time to conduct blindness-preventing surgeries because they are flooded with general eye check-up of patients. "For India, it is vital that ophthalmologists focus on surgeries and optometrists take charge of primary eye care refractive errors like presbyopia, contact lenses, low-vision aids and vision therapies. This is how most developed countries managed to control and eliminate avoidable blindness. 153 million people in the country require reading glasses but do not have access to them. Optometrists are eye physicians concerned with vision care, eye diseases and prescribe eyeglasses, contact lenses and medications to treat eye disorders. An ophthalmologist specialises in surgical care of the eyes. India has just 20 optometry schools which produce just 1,000 optometrists annually as against the 17 million people being added to the population during the same period. There is a shortage of faculty as well. There are also no regulatory laws to control the practice of optometry even though refractive error is one of the leading causes of blindness. India has just one eye surgeon per 1,00,000 people. Shortage of donated eyes is becoming a huge problem. Of the 15 million blind people in India, three million, 26% of whom are children, suffer due to corneal disorders. But only 10,000 corneal transplants are being done every year due to the shortage of donated eyes. The Union health ministry has already launched a national programme to control blindness and expects to reach its blindness elimination target of 0.3% by 2015, five years before the WHO deadline of 2020.

In this study, we have collected data to analyse statistical aspects of demographical, etiological, age, sex and epidemiological distribution of blindness among patients attending OPD at department of ophthalmology, P.D.U.Govt.Medical College, Rajkot, Gujarat , india for blindness certification.

MATERIAL AND METHOD: in this study, datas of 477 patients attending OPD at department of ophthalmology, P.D.U.Govt.Medical College, Rajkot from January 2015 to June 2016 for blindness certificate were analysed retrospectively.

We follow the following system for categorisation of visual disability.

BLINDNESS :- refers to a condition where a person suffer from any of the following condition, namely –

Total absence of sight,

Visual acuity not exceeding 6/60 or 20/200 in better eye with best correcting lenses,

Limitation of field of vision subtending an angle of 20 degree or worse.

LOW VISION :- refers to a person with impairment of vision of less than 6/18 to 6/60 with best correction or impairment of field in any one of the following criteria-

Reduced field to less than 50 degree

Hemianopia with macular involvement

Altitudinal defect involving the lower fields.

Category	Better Eye	Worse Eye	% of impairment
Category 0	6/9 – 6/18	6/24 – 6/36	20%
Category I	6/18 – 6/36	6/60 to Nil	40%
Category II	6/40 – 4/60 or field of vision 10-20 degree	3/60 to Nil	75%

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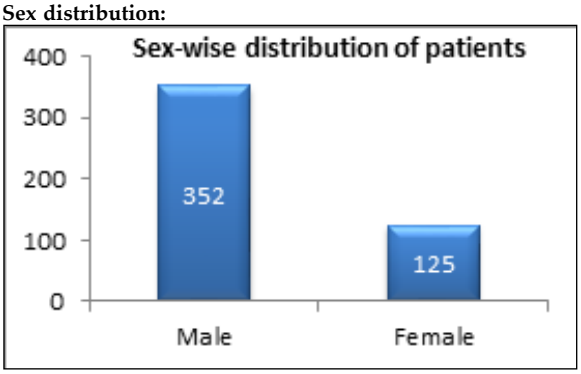
Category III	3/60 – 1/60 or field of vision 10 degree	Finger count at 1 ft. to Nil	100%
Category IV	Finger count at 1 ft. to Nil or field of vision < 10 degree	Finger count at 1 ft. to Nil	100%
One Eyed persons	6/6	Finger count at 1 ft. to Nil or field of vision 10 degree	30%

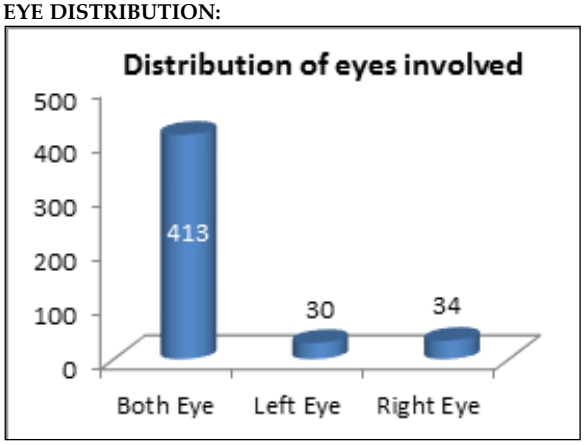
RESULT AND ANALYSIS:

Sex distribution:



Among 477 patients, there were 352 male and 125 female patients who attended OPD for disability certificate.

EYE DISTRIBUTION:



Among 477 patients, there were 413 patients with both eye involvement, 30 patients with left eye involvement and 34 patients with exclusively right eye involvement attended OPD for disability certificate.

DISTRIBUTION OF DISEASE ACCORDING TO EYE:

Disease	Right eye	Left eye
Optic atrophy	69	67
Macular degeneration	15	7
Retinitis pigmentosa	54	51
Nystagmus	84	75
Macular scar	6	6
Eviscerated eye	22	21
Albinism	20	10
Pthysis bulbi	34	22
Amblyopia	4	18
Retinal detachment	08	38
Leucomatous opacity	12	66
Congential glaucoma	1	4
Myopic Chorioretinal degeneration	23	26
Disc pallor	8	4
Microcornea with associated Anomalies	7	31
Macular hypoplasia	8	10
ARMD	3	3
Iris Coloboma/& fundus coloboma	20	42
PDR	4	2
Anophthalmos	9	4
Failed PKP	1	0
Microphthalmos	12	13
Buphthalmos	4	4
Atrophic bulbi	1	3

Amongst 477, about 357 (74.84%) patients were totally blind (100% disability) & 64 (13%) patients had 30% disability. The causes of blindness were avoidable in 30.5% (diabetic retinopathy, Glaucomatous Optic atrophy, corneal opacity, Traumatic eye injury) and not preventable in 69.5% (retinitis pigmentosa , congenital ocular malformations , optic atrophy , hereditary diseases, and age-related macular degeneration) patients.

CONCLUSION:

There will be a variation in the prevalence of leading causes of certification for blindness, from one geographical area to another. If accurate cause is identified, then the necessary preventive measures can be taken. High prevalence of phthisis bulbi caused by trauma in the younger population shows need of early intervention on certain occasions to prevent this disastrous condition in some cases. Early diagnosis and management is required to prevent blindness arising due to glaucoma and optic atrophy by various causes.

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