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Original Article

Evaluation of Awareness of Common Eye Diseases among General Population of Bihar

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Abstract
Objectives: *The main objective of this study is to assess the awareness level of common eye related problems in population of Bihar.*
Material & Methods: *a cross-sectional type of study was conducted on 422 general population in Bihar. A set of questioners were given to individuals of different age, gender and educational level.*
Results: *48.8% of participants were males and 51.2 % females. Awareness related to cataract, glaucoma, refractory error and diabetic retinopathy were 70.6%, 39.1%, 90.3% and 19.9% respectively.*
Conclusion: *compared to cataract and refractory errors, most individuals have limited awareness about the glaucoma and diabetic retinopathy.*

Introduction

Majority of blindness in the worldwide are influenced by socioeconomic factors such as poor knowledge and poverty[(1, 2)]. Visual impairment is one of the most common public health issue. Two most common causes are un-corrected refractive errors and cataract[(3)]. More than 80% of visual impairment occurs in people older than 50 years of age. Visual impairment can be prevented or cured in almost 80% of condition[(3)]. However insufficient knowledge related to eye related diseases may contribute to delay in seeking medical advice and losing the opportunity to timely interference and prevention[(4)]. So increase about the eye related condition will promote timely management and result in minimizing the burden of visual impairment[(5)]. Level of awareness related ocular diseases influenced by many factors such as socioeconomic condition, age, gender, educational level[(4)].

Material & Methods

It is a cross-sectional study conducted on 422 general population of Bihar. Individual were selected by systemic random sampling. People who were mentally and physically ill were excluded from this study. A set of questioners were given to all participants. Questions were related to visual impairment in general and 4 common ocular diseases such as cataract, glaucoma, refractive error and diabetic retinopathy.

Results

Among the 422 people, 206 (48.8%) were males and 216 (51.2%) females. Age of the participants was between 25 to 65 years of age. Educational level of individual was 88 (20.9%) below matriculation level, 86 (20.4%) matriculate, 78 (18.5%) intermediate pass, 85 (20.1%) graduates and 85 (20.1%) of participant had post graduate and above educational level.

More than two third of participants (79.6%) were knew about the cataract. 52% were aware about the cataract affect mainly elderly, 65% were knew that cataract should be corrected by surgery. About 39.1 % of individual were knew about the glaucoma, 38 % were aware that uncorrected glaucoma can lead to visual loss, only 6% were knew about the natural tendency related to glaucoma.

About 90.3% of participants were knew about the refractory error, 44% were knew that refractor error are the commonest cause of low vision, all types of refractory error were known by only 1.2 % of individual.

Table.1. Age and sex constituents of individual

Age (in years)	Male	Female	Total
25-35	52 (12.3%)	56 (13.3%)	108 (25.6%)
36-45	50 (11.8%)	54 (12.8%)	104 (24.6%)
46-55	56 (13.3%)	50 (11.8%)	106 (25.1%)
56-65	48 (11.4%)	56 (13.3%)	104 (24.7%)
	206 (48.8%)	216 (51.2%)	422 (100%)

Table.2. Education level of individual

Education level	Frequency/Percentage
Below matriculation	88 (20.9%)
Matriculation	86 (20.4%
Intermediate	78 (18.5%)
Graduate	85 (20.1%)
Post graduate & above	85 (20.1%)

Table 3 Awareness about the eye related diseases

Diseases	25-35 yr	36-45 yr	46-55 yr	56-65 yr	Total
Cataract	72 (66.7%)	77 (74%)	87(82%)	100 (96.2%)	336 (79.6%)
Glaucoma	35 (32.4%)	40 (38.5%)	43(40.6%)	47 (45.2%)	165 (39.1%)
Refractive error	89(82.4%)	96(92.3%)	97(91.5%)	99(95.2%)	381 (90.3%)
Diabetic retinopathy	20(18.51%)	21 (20.2%)	21(19.8%)	22(21.2%)	84 (19.9%)

Discussion

The burden of eye related problem can be reduced by promote the knowledge of common eye problems among the general population[6]. So this study was carried out to assess the awareness of eye related problem in population of Bihar. In this study, the awareness about glaucoma (39.1%) and diabetic retinopathy (19.9%) is much lower than that of cataract (79.6%) and refractive errors (90.3%). Low knowledge about the glaucoma is related to major health problem in India[5], China[7] and Nepal[8]. This result is very close to the study done in Australia, most people had higher knowledge of cataract (74%) than glaucoma (19%)[9].

Table. 4 Comparison of awareness of cataract & glaucoma in various countries

Study	Year	Country	Cataract awareness (%)	Glaucoma awareness (%)
Livingston et al (9)	1998	Australia	92	79
Gasch et al (10)	2000	USA	-	72
Dandona et al (5)	2001	India	69.8	2.3
Lau et al (7)	2002	China	90	78.4
Saw et al (11)	2003	Singapore	-	22.9
Mansouri et al (12)	2006	Switzerland	-	24.7
Tenkir et al (13)	2010	Ethiopia	-	2.4
Thapa et al (8)	2011	Nepal	67	2.4
Present study	2018	India	79.6	39.1

Conclusion

Awareness of adult general population in Bihar is higher about cataract and refractory errors than glaucoma and diabetic retinopathy. Health education campaign is needed to improve the awareness related to eye related problem to prevent the adverse complications related to these diseases.

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