

Original Article

Awareness & Knowledge of Glaucoma in Rural Areas of Eastern Uttar Pradesh

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ABSTRACT:

Background: Glaucoma is a disease characterized by atrophy of the optic nerve and progressive loss of vision. The present study was conducted to assess the knowledge, awareness about glaucoma in study population. **Materials & methods:** The present study was conducted on 550 subjects of both genders. Socio-demographic characteristics, awareness of glaucoma, level of knowledge about glaucoma were recorded. **Results:** Out of 550 subjects, males were 280 and females were 270. The difference was non-significant (P=0.1). Maximum number were seen in age group 21-30 years (210) followed by 11-20 years (167), 31-40 years (75), 41-50 years (56) and >50 years (42). The difference was significant (P< 0.01). 325 had never heard of glaucoma. 40 suffered from glaucoma. The difference was significant (P< 0.05). 450 patients were not aware that glaucoma is a blinding eye disease, 410 were not aware that glaucoma occurs without symptoms, 340 do not know that it is associated with high eye pressure, 380 do not know that it runs in families, 305 do not know that hypertension as risk factor, 350 were not aware that diabetes as risk factor. The difference was significant (P< 0.05). **Conclusion:** Awareness and knowledge among people is very poor. There is need to educate the people regarding signs and symptoms of glaucoma so that early detection and treatment is given to the needy.

Key words: Awareness, Glaucoma, Knowledge.

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INTRODUCTION

Glaucoma is a disease characterized by atrophy of the optic nerve and progressive loss of vision. It is an important public health problem, being the commonest cause of irreversible blindness in the world. The commonest form of this disease- open-angle glaucoma- usually has an insidious onset, which may explain why most glaucoma patients present late. The process of optic nerve damage is usually progressive and asymptomatic. Intraocular pressure is the only modifiable risk factor and other several risk factors have been identified.¹

Glaucoma is a non-communicable, chronic eye disease which needs the principles of long-term care. The asymptomatic nature along with the irreversible blindness it causes makes glaucoma a public health challenge and the second cause of avoidable blindness globally. Awareness, knowledge, and beliefs regarding diseases, as well as socio-cultural and religious practices, affect the treatment-seeking

behavior of people and the uptake of services. If glaucoma prevention services and treatment programs are available, an informed public is more likely to take advantage of it before significant functional disability or irreversible vision loss occurs.²

Glaucoma blindness imposes significant economic burden not only for individuals affected but also it increases healthcare cost, impairs quality of life, increases rehabilitation cost for the blind which all affects the economic growth of a nation. It also results a huge burden for the healthcare system and government's spending toward health care. Yet, blindness from glaucoma is preventable if detected early and managed appropriately. Early detection and prompt treatment are only achieved by timely eye examinations.³ The present study was conducted to assess the knowledge, awareness about glaucoma in study population.

MATERIALS & METHODS

The present study was conducted in the Department of Ophthalmology. It comprised of 550 subjects of both genders. All were informed regarding the study and written consent was obtained. Ethical clearance was taken from institutional ethical committee.

Subject’s information such as name, age, gender etc. was recorded. Socio-demographic characteristics, awareness of glaucoma, level of knowledge about glaucoma were recorded. Results thus obtained were subjected to statistical analysis. P value less than 0.05 was considered significant.

RESULTS

Table I Distribution of subjects

Total- 550		
Males	Females	P value
280	270	0.1

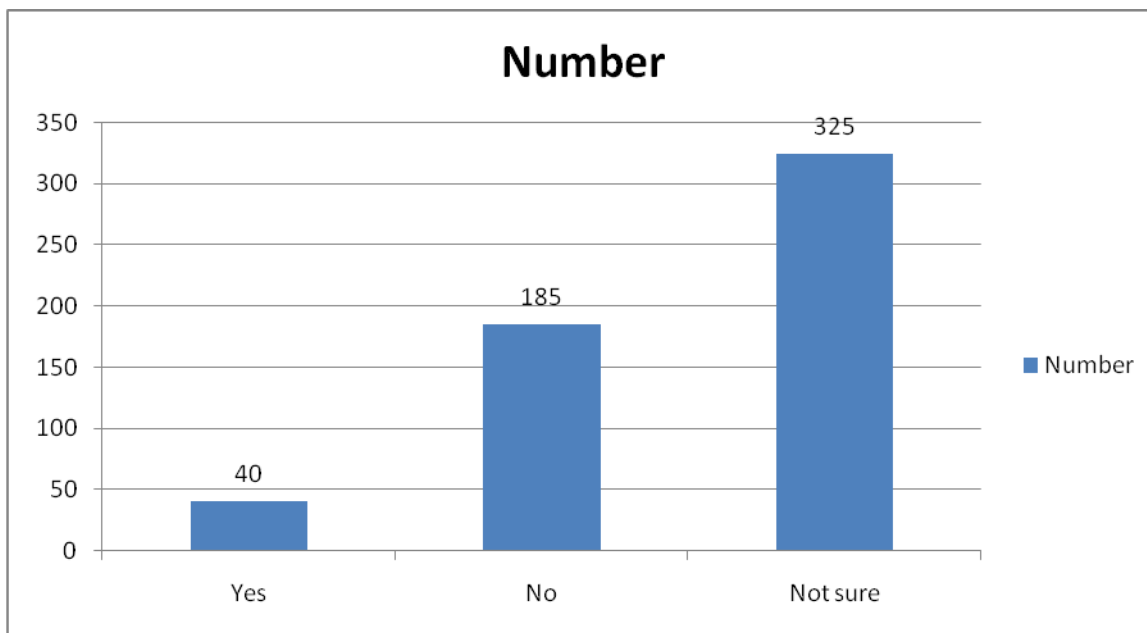
Table I shows that out of 550 subjects, males were 280 and females were 270. The difference was non- significant (P-0.1).

Table II Age wise distribution of subjects

Age group	Number	P value
11-20	167	0.01
21-30	210	
31-40	75	
41-50	56	
>50	42	

Table II shows that maximum number were seen in age group 21-30 years (210) followed by 11-20 years (167), 31-40 years (75), 41-50 years (56) and >50 years (42). The difference was significant (P- 0.01).

Graph I Awareness regarding glaucoma



Graph I shows that 325 had never heard of glaucoma. 40 suffered from glaucoma. The difference was significant (P< 0.05).

Table III Knowledge of symptoms of diseases

Question	Response	Number	P value
Glaucoma is a blinding eye disease	Yes	100	0.01
	No	450	
Glaucoma occurs without symptoms?	Yes	140	0.02
	No	410	
Associated with high eye pressure	Yes	210	0.05
	No	340	
Runs in Family	Yes	170	0.01
	No	380	
Hypertension as risk factor	Yes	245	0.05
	No	305	
Diabetes as risk factor	Yes	200	0.01
	No	350	

Table III shows that 450 patients were not aware that glaucoma is a blinding eye disease, 410 were not aware that glaucoma occurs without symptoms, 340 do not know that it is associated with high eye pressure, 380 do not know that it runs in families, 305 do not know that hypertension as risk factor, 350 were not aware that diabetes as risk factor. The difference was significant ($P < 0.05$).

DISCUSSION

Open-angle glaucoma is painless and does not have acute attacks, thus the lack of clear symptoms make screening via regular eye check-ups important. The only signs are gradually progressive visual field loss, and optic nerve changes. About 10% of people with closed angles present with acute angle closure characterized by sudden ocular pain, seeing halos around lights, red eye, very high intraocular pressure (>30 mmHg), nausea and vomiting, suddenly decreased vision, and a fixed, mid-dilated pupil. It is also associated with an oval pupil in some cases.⁴ The present study was conducted to assess the knowledge, awareness about glaucoma in study population.

In present study, out of 550 subjects, males were 280 and females were 270. This is in agreement with Abeba et al.⁵ We found that maximum number were seen in age group 21-30 years (210) followed by 11-20 years (167), 31-40 years (75), 41-50 years (56) and >50 years (42). This is similar to Micheline et al.⁶

We observed that 325 had never heard of glaucoma. 40 suffered from glaucoma. Visual impairment due to ophthalmological diseases has a negative impact on physical and mental health and is a global concern. In the USA, visual disability ranks among the top ten disabilities. Visually impaired people are at higher risk than the healthy population for accidents, social withdrawal, and depression. With population aging, the number of people with visual impairment and blindness is rapidly growing, as many eye diseases are more prevalent among the elderly. Cataract, glaucoma, age-related macular degeneration, and diabetic retinopathy are the most common causes of visual impairment.⁷

Of the several causes for glaucoma, ocular hypertension (increased pressure within the eye) is the most important risk factor in most glaucomas, but in some populations, only 50% of people with primary open-angle glaucoma actually have elevated ocular pressure. We found that most of the patients were not aware that glaucoma is a blinding eye disease, 410 were not aware that glaucoma occurs without symptoms, 340 do not know that it is associated with high eye pressure, 380 do not know that it runs in families, 305 do not know that hypertension as risk factor, 350 were not aware that diabetes as risk factor.

A study by Ogbanaya et al⁸ in their study showed that out of 402 respondents, 228 (56.7%) women and 174 (43.3%) men were interviewed. The mean age of respondents was 31.7 ± 11.9 years; 82.8% of the respondents had secondary education or less; 53% were married; and 38.1% were

farmers. Only 21.1% of the respondents were aware of glaucoma. Gender, education, and positive family history were significantly associated with awareness. Only 6.3% of the respondents had good knowledge about the disease. A large proportion of respondents (62.1%) exhibited a positive attitude towards glaucoma screening; however, only 5% had ever undergone glaucoma screening. Authors concluded that glaucoma awareness and knowledge were poor in this rural community, but a high proportion of respondents had a positive attitude towards glaucoma screening.

Glaucoma is an ocular condition that does not normally cause systemic symptoms, having no strong impact on a patient's perception about general health and categories that examine this. In a Brazilian study, glaucoma patients scored less than controls in all the SF-36 domains, with significant differences in all but three categories (general health, vitality, and role-emotional).⁹

Destaye et al¹⁰ in their study found that seven hundred one adults age 35 and above years were participated with a response rate of 99.3%. The male to female ratio was 1:1.6 with median age of 48 years with interquartile range of 20. The proportion of awareness was 35. Good knowledge was demonstrated in 49.6% of glaucoma aware participants. Education primary, secondary, college and above and having eye examination were positively associated with awareness of glaucoma whereas older age was inversely related. The study has indicated higher level of awareness and knowledge about glaucoma in urban communities than previous studies. It has also identified educational status, eye examination at least once in life are related with better awareness and knowledge. Author suggested that awareness and knowledge should be enhanced through public oriented glaucoma education via mass media and incorporating eye check up as a routine in older people.

CONCLUSION

Awareness and knowledge among people is very poor. There is need to educate the people regarding signs and symptoms of glaucoma so that early detection and treatment is given to the needy.

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