

Awareness and Knowledge about Glaucoma among Rural Population of Punjab

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ABSTRACT

Glaucoma is the second most common cause of irreversible blindness that can be prevented. In Pakistan about one million glaucoma patients have lost their eyesight due to late presentation as the disease remains asymptomatic with preservation of central vision until late. This study was planned to assess the awareness and knowledge of our rural population about glaucoma and its risk factors. People are not aware of the course of disease, its asymptomatic presentation and irreversible damage to vision. Screening trends are not prevalent and more than 80% people believe that glaucoma is curable and its damage can be reversed. This is a high time to start glaucoma awareness campaigns and screening programs in rural population.

Keywords: Glaucoma, cataract, rural population

BACKGROUND

Glaucoma is a neuropathic disease in which there is increased fluid in front part of eye causing increased pressure and damage to the optic nerve¹. When left untreated it causes damage to the visual field that leads to progressive and irreversible blindness. Two most common types of glaucoma are open angle glaucoma and angle closure glaucoma.² Despite being the most common cause of irreversible loss of vision and second most common cause of blindness it is not used as an indicator of mortality by health care practices.³

Globally, 90% of the affected people are undiagnosed and disease prevalence trends indicate that between 2010 to 2013 over 60 million people had glaucoma and this will further upsurge to about 76 to 80 million people by the end of 2020 and 118.8 million by the end of 2040 as the world population grows in age and number^{4,5}. Africa has highest glaucoma prevalence of 4.79, it is 3.40 in Asia and 2.93 in Europe. Studies reveal that 2.7% of the rural and 3.23% of the urban population in India has glaucoma⁶. Due to the asymptomatic course of disease there are a high proportion of patients who have already lost eyesight of one or both eyes at the time of presentation⁷. Glaucoma morbidity in Pakistan may be attributed to lack of awareness & knowledge of risk factors and underutilization of screening methods & treatment modalities. There are more than two million glaucoma patients in Pakistan and almost half of them have already lost

their eyesight, permanently, due to delay in diagnosis and treatment⁸.

For a poor country like Pakistan it's a luxury for people to spend their time and money on a condition that is painless and not causing any symptoms furthermore our health care system also does not give any incentive for regular eye care. People are not aware of the risk factors and instead of seeking advice of an ophthalmologist or optometrist they prefer to follow quacks and traditional healers thinking that loss of vision is due to old age and evil spirits⁹. This study was planned to assess the knowledge and awareness about glaucoma in rural population of Punjab.

The objective of the was to evaluate the knowledge and awareness of people about glaucoma and its risk factors

MATERIALS AND METHODS

A total of 500 participants were enrolled through a non-probability, convenient sampling method in a community based cross-sectional study in the rural areas of district Sahiwal Punjab from March 2017 to June 2017. Community members of age 20 years to 70 years were included in the study. Exclusion criteria was age less than 20 and more than 70 years. Study participants were interviewed by Lady Health Workers during their routine visits in community after written informed consent through a pre-designed, pre-tested questionnaire. During interviews, all questions were asked in local language (Urdu/Punjabi) which was later converted to English language for data analysis. Data was entered in SPSS-22 for analysis. Quantitative variables like age

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were presented as mean and qualitative variables like gender and questions were presented as percentages and frequencies.

RESULTS

A total of 500 participants were included in the study. Mean age was 39.14 years. 33.45% were housewives/unemployed, 29.4% were private workers, 17.4% had a government job and 19.4% were doing their own business. A total of 44.6% were

maleswhile 55.6% of them were females. 53% of them had a monthly income of less than pkr 10,000, 40.6% had between 10,000 to 50,000 and 5.8% earned 50,000 to 1 lac monthly. 35.2% of study participants were uneducated, 42% had done matric, 15% intermediate and 7.8% graduation.

A total of thirteen questions were asked about knowledge and awareness of glaucoma and the response of study participants is shown in table below:

	Awareness and knowledge	Response	(n)	%age
1	Have you ever heard about glaucoma?	Yes	500	100 %
		No		0%
2	Source of information	Doctor/health care worker	350	70%
		Print/electric media	32	6.4%
		Friend/relative	90	18%
		other	28	5.6%
3	What is Glaucoma?	Eye inflammation	65	13%
		Raised intraocular pressure	85	17%
		Blindness	250	50%
		cataract	100	25%
4	glaucoma affects eye sight	Yes	451	90.2%
		No	49	9.8%
5	Incidence of Glaucoma increases with age	Yes	473	94.6%
		No	27	5.4%
6	Damage caused by glaucoma is reversible	yes	437	87.4%
		no	63	12.6%
7	Congenital illness	Yes	146	29.2%
		No	354	70.8%
8	Glaucoma is curable	Yes	413	82.6%
		No	87	17.4%
9	Cure is possible with	Surgery	378	75.6%
		Medicine	122	24.4%
10	Hypertensives should have regular eye care	Yes	39	7.8%
		No	461	92.2%
11	Diabetics should have regular eye care	Yes	169	33.8%
		No	331	66.2%
12	Early diagnosis can improve recovery rates	Yes	429	85.8%
		No	71	14.2%
13	Have you ever visited an ophthalmologist	Yes	45	9%
		No	455	91%

DISCUSSION

This study was planned to assess the awareness and knowledge of rural population about glaucoma and 100% of them had heard about it in their life.70% of them had heard about glaucoma from doctor or some other health care worker. Of all the participants 17% were aware of the pathology that it is raised intraocular pressure half of them said that it is a disease that leads to blindness.13% of respondents said that glaucoma is some inflammatory problem that causes pain, itching and redness of eye.25% said that glaucoma is the another name of cataract that we speculate was due the similar Urdu words

used to describe cataract and glaucoma i.e., `sufaidmotiya` and `kalamotiya` and people thought that glaucoma is a term used for mature cataract¹⁰.

Ninety percent said that glaucoma affects eye sight and 94.6% knew that its incidence increases with age¹¹but it is a matter of great concern that almost 88% thought that damage caused by glaucoma is reversible that adversely affects their concern and attitude about seeking regular ophthalmological care. A study conducted in India showed equivalent results where people who were less aware of the asymptomatic course and complications of glaucoma appeared late in ophthalmology clinics¹². Only 29.2% respondents

thought that glaucoma is a congenital disease and it can run into families. A positive family history is a strong risk factor for glaucoma and its knowledge can increase the screening trends in families as well as those people can play a valuable role as agents of awareness in community¹³. In our study 82.6% respondents thought that glaucoma is curable. Similar trends are seen in other studies where people think that glaucoma can be treated^{14,15}. 75.6% of our study population believed that cure of glaucoma is possible with surgery this perception of surgical management is may be due to their perception of glaucoma and cataract being a single disease.

Hypertension and diabetes are among the most significant risk factors for glaucoma and physicians and ophthalmologists recommend regular eye care and screening to these patients however, in our study population only 7.8% people reported that people with diagnosed high blood pressure should have regular eye care⁸. Diabetes has a more symptomatic course and may be that is the reason for better knowledge about screening tests in diabetics in community. 33.2% of our population said that people with diagnosed diabetes mellitus should regularly visit ophthalmologists and get their eyes examined. 85.8% people said that early diagnosis can improve recovery rates.

CONCLUSION

In our study population showed poor knowledge and awareness about glaucoma and its risk factors. Majority of the population knew that glaucoma affects visual acuity and its incidence increases with age but more than 94% of them believed that damage caused by glaucoma is reversible and disease can be treated with surgery. About 86% knew that early diagnosis could improve recovery but only 9% had ever visited an ophthalmologist for any reason. Screening trends are not prevalent in community and people are not aware of the asymptomatic course of the disease.

RECOMMENDATIONS

Health education about glaucoma is very low and public awareness campaigns should be run to influence people about screening that will lead to early detection and management of this potentially blinding condition. These health education sessions should essentially be conducted in local languages that our target population understands.

Limitation: The limitation of this study was that the study subjects were approached from a small sect of rural population hence the findings cannot be generalized to the whole rural population.

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