

Frequency of Social Risk Factors for Progression of Primary Open Angle Glaucoma at Kasur

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ABSTRACT

Aim: To determine the frequency of social risk factors for progression of primary open angle glaucoma at Kasur.

Study design: Descriptive cross sectional study.

Duration: The study was conducted from June 2012 to June 2013.

Settings: Department of Ophthalmology, Central Park Medical College Lahore/Bhatti International Teaching Hospital, Kasur.

Methods: A total of one hundred (100) patients between 40-80 years of both sexes visiting at the out patient department of Ophthalmology, Bhatti International Teaching Hospital, Kasur with advanced primary open angle glaucoma were enrolled.

Results: Majority of the patients were between 60-70 years of age i.e. 51(51%), 22(22%) were between 51-60 years, 18(18%) were between 41-50 years, and only 9%(n=9) were between 61-70 years of age, mean±sd was recorded as 60.43±4.16 years. 55(55%) male and 45(45%) were females, frequency of social risk factors reveals 97(97%) lack of awareness, 16(16%) deprivation, 45(45%) poor compliance, 6(6%) maltreatment, 45(45%) had inappropriate counseling and 6(6%) had family history.

Conclusion: Lack of awareness, poor compliance, and inappropriate counseling are the potential social risk factors for progression of primary open angle glaucoma at Kasur.

Keywords: Primary open angle glaucoma, social risk factors, frequency, Lack of awareness,

INTRODUCTION

Primary Open Angle Glaucoma is a disease with major importance in public health. It is one of the leading causes of blindness worldwide¹⁻⁸ and accounts for 13% of all new registrations of blindness annually in England & Wales⁹.

The major risk factors for developing open-angle glaucoma include age, black race, family history, and elevated intraocular pressure.¹⁰⁻¹¹

Although risk factors for the development of open-angle glaucoma have been well-documented, risk factors for progression of open-angle glaucoma have not been as conclusively established¹². Results conflict whether fluctuation in IOP is predictive of glaucoma progression¹³⁻¹⁴. Even in patients with documented findings of glaucoma on comprehensive eye examination (eg, visual field deficits, optic disc changes), it is unclear which patients go on to develop loss of visual acuity and blindness¹⁵.

Glaucoma advances with few symptoms. That is why a huge proportion of glaucoma sufferers remain undiagnosed and untreated¹⁶ until it is very late. Lack of awareness, poor compliance and low socioeconomic status also contribute to progression of disease¹⁷⁻¹⁹. Maltreatment by unqualified

practitioners is possibly responsible for advancement of glaucoma. Inadequate patient education by ophthalmologist could be another cause.

This study is an attempt to identify the role of such basic social risk factors for progression of Primary Open Angle Glaucoma in rural area of Kasur.

MATERIAL AND METHODS

Patients between 40-80 years of both sexes visiting at the out patient department of Ophthalmology, Bhatti International Teaching Hospital, Kasur with advanced primary open angle glaucoma were enrolled. Standard protocol for glaucoma evaluation was followed including best corrected visual acuity (BCVA), IOP measurement, gonioscopy and optic disc examination. Visual field test by the Humphrey automated perimeter was performed except when field loss was so advanced that field testing was not possible. Conventional cup: disc ratio was used for categorizing glaucomatous disc damage. Patients with cup: disc ratio more than 0.8 were included in study. Deprivation, lack of awareness, poor compliance, inadequate patient counseling and maltreatment were evaluated as risk factors for glaucoma advancement.

After taking informed consent each patient was interviewed to determine presence or absence of

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social risk factors mentioned above. Lack of awareness about glaucoma was labeled if the patient was ignorant about nature of disease, visual field changes and role of intraocular pressure. Deprivation was determined by asking if the patient could afford cost of treatment including travel expenses. Patient was asked whether he got treatment from quacks any time during course of disease. Non-compliance was considered to be present if the patient was irregular in visits to ophthalmologist or he/she had missed more than two doses per week on average. Counseling was evaluated by asking whether the patient was educated by ophthalmologist about the role of intraocular pressure, the progressive optic nerve damage, irreversible visual field loss, the meticulous need for compliance of treatment, predisposition due to family history and different treatment options.

The collected data was entered in SPSS version 16.0, quantitative variable i.e. age was computed as mean±sd while qualitative variables i.e. gender and frequency of social risk factors for progression of primary open angle glaucoma were recorded as frequency and percentages. No test of significance is required.

RESULTS

Age distribution of the patients was done which shows that in both groups majority of the patients were between 60-70 years of age i.e., 51(51%), 22(22%) were between 51-60 years, 18(18%) were between 41-50 years, and only 9(9%) were between 61-70 years of age, mean±sd was recorded as 60.43±4.16 years (Table 1).

Gender distribution of the patients shows 55(55%) male and 45(45%) were females (Table 2).

Frequency of social risk factors reveals 97(97%) lack of awareness, 16(16%) deprivation, 45(45%) poor compliance, 6(6%) maltreatment, 45(45%) had inappropriate counseling and 6(6%) had family history (Table 3).

Table 1: Age Distribution (n=100)

Age in years	=n	%age
41-50	18	18
51-60	22	22
61-70	51	51
71-80	09	09

Mean±SD: 60.43±4.16

Table 2: Gender Distribution (n=100)

Gender	=n	%age
Male	55	55
Female	45	45

Table 3: Frequency of Social Risk Factors for Progression of Primary Open Angle Glaucoma at Kasur (n=100)

Social risk factors	=n	%age
Lack of awareness	97	97
Deprivation	16	16
Poor compliance	45	45
Maltreatment	06	06
Inappropriate counseling	45	45
Family history	06	06

DISCUSSION

As knowledge of eye diseases is generally lacking¹⁴⁻¹⁷ in common public, lack of awareness turned out to be the most critical social risk factor associated with glaucoma advancement. A patient who is ignorant of disease will seek ophthalmologist advice at a late stage and will not be treated in time. A well informed patient on the other hand will present early, diagnosed early and will get proper treatment.

The second most important social risk factor for glaucoma advancement i.e. poor compliance is again associated with patient awareness. A patient who is well aware of disease will be more compliant than a patient having little knowledge of disease.

Deprivation has been linked to progression of glaucoma by some other studies^{18,19}. However in this study this association did not prove to be very strong. Glaucoma screening and treatment requires special skills.

In developed countries, the major risk factors for developing open-angle glaucoma include age, black race, family history, and elevated intraocular pressure¹⁰⁻¹¹.

The difference between our findings and there is due to their improved literacy rate, however, lack of awareness, poor compliance and in appropriate counseling is avoided in their societies unlike ours.

Unfortunately in our community, some untrained people are indulged in ophthalmic practice. Spectacle sellers, Hakeems, paramedical staff have become health care providers. One wrong advice by so called experts takes the patient long way from treatment.

Inadequate counseling by ophthalmologists remained a highly significant risk factor for progression of disease. However some other studies in rural and sub-rural areas are required to confirm these findings.

Improving education and increasing awareness of glaucoma will help in checking progression of disease in glaucoma patients. A campaign should be launched to improve awareness of glaucoma in society. TV radio and print media should be used for this purpose. Patients visiting eye clinics should be given pamphlets and brochures. Posters providing

information about glaucoma may be displayed in eye outdoors. Patient education needs a lot of improvement. Patient should be informed about role of intraocular pressure, progressive nature of disease, irreversible damage and need for meticulous compliance.

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