

Reasons for Blindness in Lahore - Pakistan

NABEEGH RANA¹, SAMIA SUMBLE², ANUM ARSHAD³, ASIF IQBAL⁴

ABSTRACT

Aim: To recognize different patterns of the reasons for blindness in our population.

Methods: Retrospective study was conducted at Sharif Medical City Hospital, Lahore & Ittefaq hospital, Lahore. Duration of the study was 2 months. A total 32 patient's files were obtained from the hospital administration and the secrecy of data was ensured. All cases were handled as anonymous individuals. Structured questionnaire was used to collect data. SPSS software version 20 was used for analysis of data.

Results: A total 32 patient's data was collected & analyzed. All the patients were between 50 to 70 years old. Most of them were between 59 to 62 years of age. Among these patients female gender was predominant. Posterior capsular Opacities found in 12 patients 12(37.5%). Glaucoma was second leading cause 8(25%).

Conclusion: We found that cataract (posterior capsular opacities) was the most winning condition while glaucoma was at number second causing blindness in our society. Majority of causes leading to blindness are treatable awareness is necessary especially in developing countries.

Keywords: Blindness; Lahore; Cataract; Glaucoma

INTRODUCTION

Blindness term is used to describe for nearly complete or complete visual loss¹. World Health organization (WHO) evaluated that the quantity of individual's impedance worldwide in 2010 was 161 million, whom around 39 million were blind. It is anticipated that without any additional intervention, these numbers will ascend to 76 million by year 2020^{2,3,4}. Over ninety percent of individuals with visual disability reported from developing countries. WHO started a worldwide mission named "Vision 2020 right to sight" aim of the mission is to take out the primary drivers of visual impairment. More than 80% causes of blindness are avoidable or treatable. Patients who have untreatable blindness require reorganization of their habits and education to allow them to do everyday tasks in different ways⁵.

Causes of blindness include cataract, glaucoma, diabetic retinopathy, macular degeneration, traumatic wounds, untreated infections, and powerlessness to acquire any glasses. Less basic causes are Vitamin A deficiency, vascular diseases, malignancies, chemical exposure, genetic. Treatment & forecast relies on the cause⁶.

Pakistan is a developing country and it is the 6th most populous nation of the world⁷. Few studies had been led on visual impairment & blindness from this

part of the world especially from Pakistan. The main objective of the current study was to identify various trends among the causes of blindness. So we can guide & educate our society to reduce the risks for blindness.

The objective of the study was to determine the common age, effected gender and causes of blindness in our society.

MATERIAL & METHODS

This retrospective study was conducted at Sharif Medical City Hospital, Lahore & Ittefaq hospital, Lahore. Duration of the study was 2 months from April 2014 to May 2014. After approval from ethical review board a total 32 patient's files were obtained from the hospital administration and the secrecy of data was ensured. All cases were handled as anonymous individuals. Structured questionnaire was used to collect data. SPSS version 20 was used for analysis of data.

RESULTS

A total 32 patient data was analyzed; all the patients were between 50 to 70 years, most of them were between 59 to 62 years of old details shown in Fig. 2. Gender of the patients was also seen to be a vital variable 20(62.5%) of the total cases reported were females. While only 12(37.5%) were males shown in Fig. 3. Twelve patients out of n=12, 32(37.5%) reported to have Posterior capsular Opacities. Another 8(25%) patients had Glaucoma which leads

¹WMO, Basic Health Unit Kotli Syed Amir Ali, Sialkot.

²WMO, DHQ Hafizabad

³WMO, DHQ Hospital Sheikhpura.

⁴MO, DHQ Hospital, Sheikhpura

Correspondence to Dr. Asif Iqbal, Email: asiffsandhu@yahoo.com
Cell: 03314838518

to blind vision while 6(18.75%) patients were suffering from keratopathies. Rest of the 6(18.75%) includes the hypertension, corneal degeneration and blephritis (Fig. 1).

DISCUSSION

The primary target of the present study was to distinguish different patterns among the reasons for blindness in our society. We additionally attempted to look for age and sexual orientation associated with blindness.

We found that Twelve patients out thirty two 37.5% have Posterior capsular Opacities while 25% patients had Glaucoma which leads to blind vision rest of them were suffering from keratopathies, hypertension, corneal degeneration and blephritis. Similar results were revealed by Singh N et al; reported the cataract as major cause of visual acuity and blindness⁸. Gupta & colleagues conducted a study “burden of corneal blindness in India” and concluded that corneal diseases to b the other leading cause after cataract and glaucoma, reporting approximately 6.8 million cases⁹. Diabetic retinopathy remains the major cause for blindness followed by avoidable causes in a few research reports in Middle East and Asia^{10,11}.

Singh N et al 2014 reported for blindness and visual-acuity in age groups with odd ratios (OR): 60-69yrs 95% prevalence OR of 3.8, 70-79 yrs OR of 10.6, 80 and above had OR of 30.7-gender variable involving mostly females⁸. A study from Nigeria also showed the female are more prone to develop blindness during their later age¹². Majority of our patients were females 62.5% between 60-70 yrs of age. More cataract prevalence was seen in female gender in extremes of their ages. If special attention not provided by authorities & proper awareness campaign is not started by this will result in severely increase in number in coming days.

CONCLUSION

We found Cataract (posterior capsular opacities) was found to be the most prevailing condition while Glaucoma is the second most common causing decreased visual acuity and blindness to the date.

Fig. 1: Causes of blindness

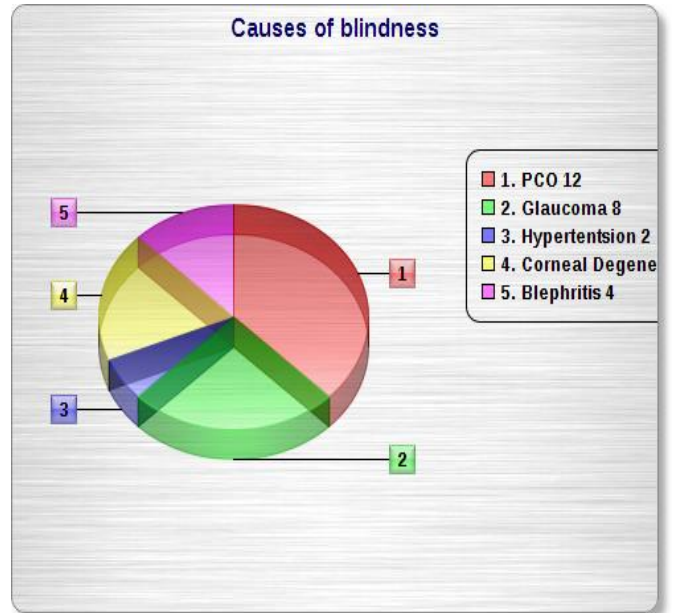


Fig.2: Age groups distribution

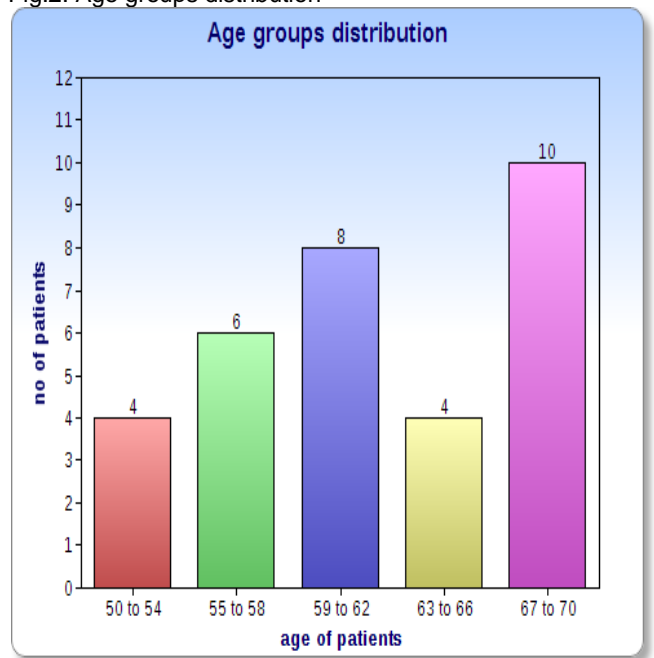
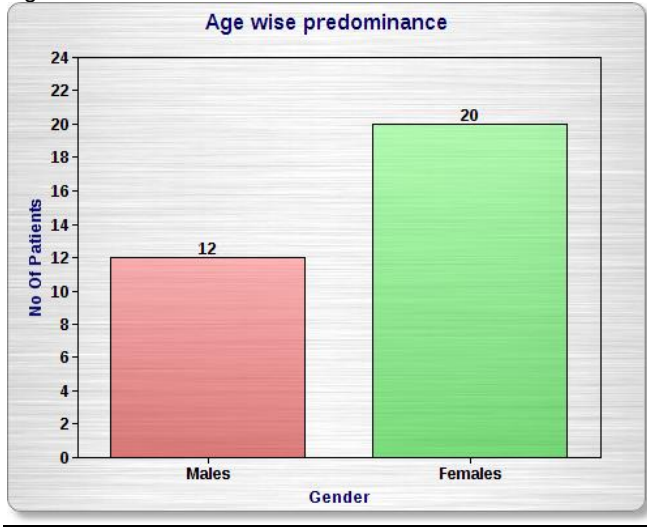


Fig.3: Gender distribution



REFERENCE

1. Cox PR, Dykes MK. Effective classroom adaptations for students with visual impairments. *Teaching Exceptional Children*. 2001 Jul; 33(6):68-74.
2. Xiao B, Yi J, Limburg H, Zhang G, Le Mesurier R, Müller A, Congdon N, Iezzi B. The Prevalence of Blindness, Visual Impairment and Cataract Surgery in Tuoketuo and Shangdu Counties, Inner Mongolia, China. *Open Journal of Ophthalmology*. 2015 Jan 29;5(01):23.
3. Al Ghamdi AH, Rabiou M, Hajar S, Yorston D, Kuper H, Polack S. Rapid assessment of avoidable blindness and diabetic retinopathy in Taif, Saudi Arabia. *British Journal of Ophthalmology*. 2012 Jan 1;bjophthalmol-2012.
4. Iqbal S, Dubey AK, Gedam DS. Blindness: Indian scenario: Is it really preventable?. *International Journal of Medical Research and Review*. 2013 Dec 30;1(05).
5. Ackland P. The accomplishments of the global initiative VISION 2020: The Right to Sight and the focus for the next 8 years of the campaign. *Indian journal of ophthalmology*. 2012 Sep;60(5):380.
6. Ngondi J, Ole-Sempele F, Onsarigo A, Matende I, Baba S, Reacher M, Matthews F, Brayne C, Emerson PM. Prevalence and causes of blindness and low vision in southern Sudan. *PLoS Medicine*. 2006 Dec 19;3(12):e477.
7. Jadoon MZ, Dineen B, Bourne RR, Shah SP, Khan MA, Johnson GJ, Gilbert CE, Khan MD. Prevalence of blindness and visual impairment in Pakistan: the Pakistan National Blindness and Visual Impairment Survey. *Investigative ophthalmology & visual science*. 2006 Nov 1;47(11):4749-55.
8. Singh N, Eeda SS, Gudapati BK, Reddy S, Kanade P, Shantha GP, Rani PK, Chakrabarti S, Khanna RC. Prevalence and causes of blindness and visual impairment and their associated risk factors, in three tribal areas of Andhra Pradesh, India. *PLoS one*. 2014 Jul 9;9(7):e100644.
9. Gupta N, Tandon R, Gupta SK, Sreenivas V, Vashist P. Burden of corneal blindness in India. *Indian journal of community medicine: official publication of Indian Association of Preventive & Social Medicine*. 2013 Oct;38(4):198.
10. Tabbara KF. Blindness in the eastern Mediterranean countries. *British journal of ophthalmology*. 2001 Jul 1;85(7):771-5.
11. Congdon NG, Friedman DS, Lietman T. Important causes of visual impairment in the world today. *Jama*. 2003 Oct 15;290(15):2057-60.
12. Dineen B, Gilbert CE, Rabiou M, Kyari F, Mahdi AM, Abubakar T, Ezelum CC, Gabriel E, Elhassan E, Abiose A, Faal H. The Nigerian national blindness and visual impairment survey: Rationale, objectives and detailed methodology. *BMC ophthalmology*. 2008 Sep 22;8(1):17.