OPEN ACCESS Freely available online
www.banglajol.info/index.php/JSF
Journal of Science Foundation
July 2018, Vol. 16, No. 2, pp. 45-48
ISSN (Print) 1728-7855
DOI: http://dx.doi.org/10.3329/jsf.v16i2.40868

Original Article

Socio-demographic Characteristics of Cataract Patients attended at a Tertiary Care Hospital in Bangladesh

Shamima Sultana[1], AQM Omar Sharif[2], Inamur Rahman Choudhury[3], MM Ehsanul Haque[4], Wahida Begum[5]

Abstract

Background: Cataract is the leading cause for avoidable blindness in the world. **Objective:** The purpose of the present study was to see the socio-demographic characteristics of cataract patients. **Methodology:** This cross-sectional study was conducted at National Institute of Ophthalmology, Dhaka, Bangladesh from January 1999 to December 2000 for a period of two (02) years. Patients with senile cataract were selected for study. The details socio-demographic characteristics of the study population were collected which were age, sex, occupation. Data were collected on pre-designed data collection sheet, compiled and appropriate statistical analysis was done using computer based software. **Result:** A total number of 60 cataract patients were recruited for this study. The mean age with the standard deviation was 58.8±6.055 years. The male and female ratio was 1.31:1. Majority were farmer which was 29(48.3%) cases followed by house wife, grocer and office peon which were 26(43.3%) cases, 4(6.7%) cases and 1(1.7%) case respectively. Most of the patients were from poor socio-economic condition which was 34(56.7%) cases. Majority of the patients were illiterate which was 47(78.3%) cases. **Conclusion:** In conclusion old age male patients coming from poor socioeconomic condition are the most commonly affected by cataract. *[Journal of Science Foundation 2018;16(2):45-48]*

Keywords: Socio-demographic; Cataract; age group, gender, occupation

*[**Reviewed:** 3 February 2018; **Accepted on:** 1 March 2018; **Published on:** 1 July 2018]*

[1]Assistant Professor (Eye), National Institute of Ophthalmology, Dhaka, Bangladesh
[2]Junior Consultant, Department of Ophthalmology, Shaheed Suhrawardy Medical College and Hospital, Dhaka, Bangladesh
[3]Associate Professor (Eye), National Institute of Ophthalmology, Dhaka, Bangladesh
[4]Professor, Department of Neurosurgery, Chittangong Medical College, Chittagong, Bangladesh
[5]Associate Professor, Department of Neuroradiology and Imaging. National Institute of Neurosciences & Hospital, Dhaka, Bangladesh

Correspondence: Dr. Shamima Sultana, Assistant Professor (Eye), National Institute of Ophthalmology, Sher-E-Bangla Nagar, Agargaon, Dhaka-1207, Bangladesh; Cell: +8801729232923. Email: sshamima2002@gmail.com

Introduction

Cataract is one of the most common eye disease (Quintana et al., 2013). It is expected to rise in the coming years in developed countries (Congdon et al., 2004). In majority of cases, the occurrence of this type of cataract is determined by ageing and, therefore, with longer life expectancies, it is bound to increase. Some studies have found differences due to socio-demographic factors in the occurrence of this disease or in the indication for surgery (Rochtchina et al., 2003; Tobacman et al., 1998). Few studies, however, have assessed changes in visual acuity or function in relation to socio-demographic variables.

Aging is often accompanied by the cumulative impact of chronic disease, increased prevalence of disability, worsening health status and reduced quality of life among the growing number of older persons (Goyal et al., 2004). Aging, in itself, has been associated with a decline in visual functioning, with associated decline in physical and mental functioning. A number of studies have demonstrated impact of cataract related visual impairment on quality of life (Nirmalan et al., 2005; Polack et al., 2007). These studies, showed that worsening of general functioning, psychosocial and overall eyesight were associated with increased visual loss. Those with increased visual loss were more likely to report dissatisfaction with quality of life and had poorer self-rated health than persons with normal vision. This present study was undertaken to see the socio-demographic characteristics of cataract patients at a tertiary care hospital in Bangladesh.

Methodology

This cross-sectional study was conducted at National Institute of Ophthalmology, Dhaka, Bangladesh. This was the referral eye hospital in Bangladesh. This study was carried out from January 1999 to December 2000 for a period of two (02) years. Patients with senile cataract were selected for study. Senile cataract patients with functional disability fully accounted for by cataract formation and not for other ocular pathology were selected as study population. Patients with other associated ocular disease, preexisting corneal lesion, cataract other than senile type, history of previous ocular surgery in the same eye and patients not attending in all the follow-up visits were excluded from the study. For the purpose of recording, a proforma was prepared containing patients age, sex, occupation, address, chief complaints, history of present illness as well as past ocular and systemic illness, family history and treatment history. Data were collected on pre-designed data collection sheet, compiled and appropriate statistical analysis was done using computer based software (SPSS computer program). Qualitative data were expressed as frequency and percentage and the quantitative data were expressed as mean and standard deviation.

Results

A total number of 60 cataract patients were recruited for this study. In this study majority were in the age group of 51 to 60 years which was 38(63.3%) cases and the rest 22(36.7%) cases were in the age group of 60 to 70 years. The mean age with the standard deviation was 58.8±6.055 years (Table 1).

Table 1: Age Distribution of Study Population (n=60)

Age Group	Frequency	Percentage
51 to 60 Years	38	63.3
60 to 720 Years	22	36.7
Total	**60**	**100.0**

In this study male was predominant than female which was 34(56.7%) cases and 26(43.3%) cases respectively. The male and female ratio was 1.31:1 (Table 2).

Table 2: Age Distribution of Study Population (n=60)

Gender	Frequency	Percentage
Male	34	56.7
Female	26	43.3
Total	**60**	**100.0**

Out of 60 patients majority were farmer which was 29(48.3%) cases followed by house wife, grocer and office peon which were 26(43.3%) cases, 4(6.7%) cases and 1(1.7%) case respectively (Table 3).

Table 3: Distribution of Occupational status in study population

Occupation	Frequency	Percentage
Farmer	29	48.3
Grocer	4	6.7
Office peon	1	1.7
House wife	26	43.3
Total	**60**	**100.0**

Among 60 cases most of the patients were from poor socio-economic condition which was 34(56.7%) cases followed by middle and high socio-economic condition which was 21(35.0%) cases and 5(8.3%) cases respectively (Table 4).

Table 4: Distribution of Socio-Economic status in study population

SE Status	Frequency	Percentage
Poor	34	56.7
Middle	21	35.0
High	5	8.3
Total	**60**	**100.0**

Majority of the patients were illiterate which was 47(78.3%) cases followed by primary and graduate which was 12(20.0%) cases and 1(1.7%) case respectively (Table 5).

Table 5: Distribution of educational status in study population

SE Status	Frequency	Percentage
Illiterate	47	78.3
Primary	12	20.0
Graduate	1	1.7
Total	**60**	**100.0**

Discussion

Cataract is one of the major conditions chosen by the global initiative, Vision 2020—The Right to Sight, due to the magnitude of its contribution to the burden of blindness (WHO 2007). Several studies have reported on the burden of visual loss from cataracts and have demonstrated that the prevalence of cataracts increases with increasing age (Tsai et al., 2003; Mukesh et al., 2006). An appreciation of the impact of visual impairment or blindness on one's functional ability and quality of life is useful in providing a comprehensive picture of the burden of visual impairment beyond clinical evaluation (WHO 2004).

Non-communicable and chronic diseases currently accounting for 60.0% of deaths globally per annum and 47.0% of the global burden of disease are mostly associated with aging (Currat 2004). The frequency of these conditions increases with age, and they do occur concurrently with cataract. A total number of 60 cataract patients were recruited for this study. In this study majority were in the age group of 51 to 60 years which was 38(63.3%) cases and the rest 22(36.7%) cases were in the age group of 60 to 70 years. The mean age with the standard deviation was 58.8±6.055 years. In a study (Yawson et al., 2014) prevalence of cataract among older persons was determined through a question on whether they have been told by a health professional that they have cataract. These health professional are either doctors or ophthalmic nurses with capacity to diagnose basic eye conditions including cataracts. The observation suggests that those diagnosed might have accessed eye care services at health facilities or during screening programs. Thus increased prevalence may imply improve access to health care and not necessarily increased disease burden. In this

analysis most cases of cataracts of any degree of maturity, were more likely to have been diagnosed by trained health professionals at the health facility.

Among 60 cases most of the patients were from poor socio-economic condition which was 34(56.7%) cases followed by middle and high socio-economic condition which was 21(35.0%) cases and 5(8.3%) cases respectively. From the result of this study it has been reported that patients with poor socio-economic condition are mostly affected by cataract. This may be related to better access to eye health care with aggregation of eye care services in urban areas (WHO 2007). Rural areas have limited access and residents depend mainly on erratic outreach services for eye health care. Most rural residents access health care at sub-district levels like health centres and community-based health care where routine eye care services are unavailable[11]. Access to eye care services is critical for early risk detection and prevention of blindness or visual impairment. Well-structured outreach eye care services for poor patients or inclusion of basic eye health services at sub-district levels is critical to improve eye health of older persons in Ghana.

Majority of the patients were illiterate which was 47(78.3%) cases followed by primary and graduate which was 12(20.0%) cases and 1(1.7%) case respectively. From this result it has been clear that illiterate persons are more vulnerable for cataract. In another study it has been reported that persons with lower education, low income and health insurance reported significant higher prevalence of cataract (Yawson et al., 2014). A potential explanation is their inability to access eye care services due to lack of knowledge as well as the availability of these services, ability to afford other personal costs involved in seeking health care and improved financial access to health care through the national health services. Generally, in this analysis, older persons in low income groups, poorly educated or living alone had some difficulty seeking vision services and care to prevent blindness or visual impairment (Mukesh et al., 2006). This constitute a vulnerable group who may require special attention to access eye care services.

There are some limitation of this study. This is a single centre study with a small sample size. Therefore it is not representing the whole country scenario. Furthermore, this hospital is the public hospital giving the treatment with a very low cost. Thus poor socio-economic condition people are more commonly attending in this hospital which gives this type of findings.

Conclusion

In conclusion older age group patients are the age group who are suffering from cataract. Male patients are predominant than female. Furthermore most of the patients are coming from poor socioeconomic condition and are most commonly affected by cataract. Large scale study should be carried out to get the scenario of whole country.

References

Congdon N, Vingerling JR, Klein BE, West S, Friedman DS, Kempen J et al. Prevalence of cataract and pseudophakia/aphakia among adults in the United States. Arch Ophthalmol 2004; 122: 487-494.

Currat LJ, de Francisco A, Al-Tuwaijri S, Al-Tuwaijri A, Jupp S. Global Forum for Health Research: Helping correct the 10/90 gap. The 10/90 Report on Health Research 2003–2004. 2004, Geneva, Switzerland: Published by Global Forum for Health Research

Goyal R, Shankar J, Sullivan S. Referrals for cataract surgery: variations between different geographic areas within a Welsh Health Authority. Eye 2004; 18: 773-777.

Mukesh BN, Le A, Dimitrov PN, Ahmed S, Taylor HR, McCarty CA. Development of cataract and associated risk factors: the Visual Impairment Project. Arch Ophthalmol. 2006, 124 (1): 79-85

Nirmalan PK, Tielsch JM, Katz J. Relationship between vision impairment and eye disease to vision-specific quality of life and function in rural India: the Aravind Comprehensive Eye Survey. Invest Ophthalmol Vis Sci. 2005, 46: 2308-2312

Polack S, Kuper H, Mathenge W. Cataract visual impairment and quality of life in a Kenyan population. Br J Ophthalmol. 2007, 91: 927-932

Quintana JM, Garcia S, Aguirre U, Gonzalez N, Arteta E, Escobar A, Bare M, Blasco JA, Martínez-Tapias J, Martínez-Tapias J, Aguayo E. Relationship of sociodemographic variables with outcomes after cataract surgery. Eye. 2013;27(6):698

Rochtchina E, Mukesh BN, Wang JJ, McCarty CA, Taylor HR, Mitchell P. Projected prevalence of age-related cataract and cataract surgery in Australia for the years 2001 and 2021: pooled data from two population-based surveys. Clin Exper Ophthalmol 2003; 31: 233-236.

Tobacman JK, Zimmerman B, Lee P, Hilborne L, Kolder H, Brook RH *et al.* Visual function impairments in relation to gender, age, and visual acuity in patients who undergo cataract surgery. Ophthalmology 1998; 105: 1745-1750.

Tsai SY, Hsu WM, Cheng CY, Liu JH, Chou P. Epidemiologic study of age-related cataracts among an elderly Chinese population in Shih-Pai, Taiwan. Ophthalmology. 2003, 110 (6): 1089-1095

WHO Library Cataloguing-in-Publication Data: Global Initiative for the Elimination of Avoidable Blindness. 2007, World Health Organization, Geneva, Switzerland: action plan, 2006-2011

World Health Organization: Global strategy on diet, physical activity and health. 2004, Geneva: Published by the World Health Organization

Yawson AE, Ackuaku-Dogbe EM, Seneadza NA, Mensah G, Minicuci N, Naidoo N, et al. Self-reported cataracts in older adults in Ghana: sociodemographic and health related factors. BMC public health. 2014;14(1):949