(e) ISSN Online: 2321-9599

(p) ISSN Print: 2348-6805

ORIGINAL ARTICLE

Evaluation of cataract among patients above 50 years of age- A clinical study

Saurabh Baiswar

Assistant Professor, Department of Ophthalmology, Mayo Institute of Medical Sciences Barabanki U.P., India

***ABSTRACT*:**
Background: Cataract is a major cause of avoidable blindness and visual impairment throughout the world. The present study was conducted to determine cases of cataract in adult population. **Materials & Methods:** The present study was conducted on 68 patients of both genders. In all patients, visual acuity as per NPCB guidelines was recorded. **Results:** Out of 68 patients, males were 38 and females were 30. Normal vision was seen in 2, low vision in 24, economic blindness in 30 and social blindness in 12. The difference found to be significant (P< 0.05). Risk factors were diabetes in 45, hypertension in 48, family history was 13 and age >50 years was seen in 35 patients. The difference found to be significant (P< 0.05). **Conclusion:** Cataract is considered to be the major reason for blindness among adults. Risk factors were diabetes, hypertension, advancing age and positive family history.
Key words: Cataract, diabetes, hypertension

Corresponding author: Dr. Saurabh Baiswar, Assistant Professor, Department of Ophthalmology, Mayo Institute of Medical Sciences Barabanki U.P., India

This article may be cited as: Baiswar S. Evaluation of cataract among patients above 50 years of age- A clinical study. J Adv Med Dent Scie Res 2015;4(5):162-164.

INTRODUCTION

Cataract is a major cause of avoidable blindness and visual impairment throughout the world and is likely to present an increasing burden to health care systems as the world's population ages due to increased life expectancy.[1] Cataract is a major cause of vision impairment in many low-income settings. It remains uncertain as to whether the high levels observed are explained largely by reduced access to cataract surgery or additionally to potential environmental risk factors more prevalent in low-income settings, such as poor diets, occupational sunlight exposure, and use of biomass fuels.[2] Genetic factors may also be relevant, especially if cataract prevalence varies between low-income populations. Variations in the prevalence of different types of cataract may also suggest possible etiologic or genetic factors.[3]

cataract has remained the major cause of blindness over the years. Approximately 45 million people are blind worldwide, out of which cataract accounts for 17.6 million (39%) cases. South East Asian region contributes to 50-80% of all blindness.[4] Data from the rapid assessment during the national blindness survey (2006-2007) put the prevalence of blindness as 8% in individuals above 50 years of age in India. Prevalence of blindness was reported to be 8%in the age group of more than 50 years as per National blindness survey. Cataract accounts for 62.6% of all blindness affecting 9-12 million bilaterally blind persons. In India, an estimated 20 lakhs new cases of cataract is being added to the burden every year.[5] The present study was conducted to determine cases of cataract in adult population.

MATERIALS & METHODS

The present study was conducted in the department of Ophthalmology. It comprised of 68 patients of >50 years of age of both genders. Ethical approval was obtained from institute prior to the study. All patients were informed regarding the study and written consent was obtained.

General information such as name, age, gender etc. was recorded. In all patients, visual acuity as per NPCB guidelines was recorded. Results thus obtained were subjected to statistical analysis. P value less than 0.05 was considered significant.

RESULTS

Table I Distribution of patients

Total- 68		
Gender	**Males**	**Females**
Number	38	30

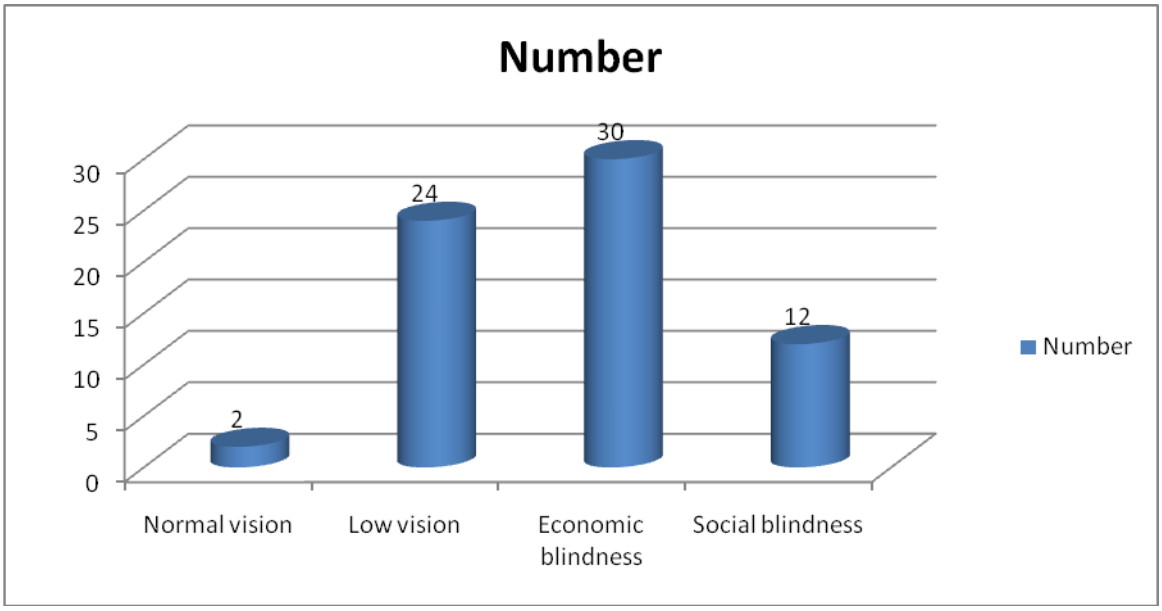
Table I shows that out of 68 patients, males were 38 and females were 30.

Table II Distribution of visual acuity among study population

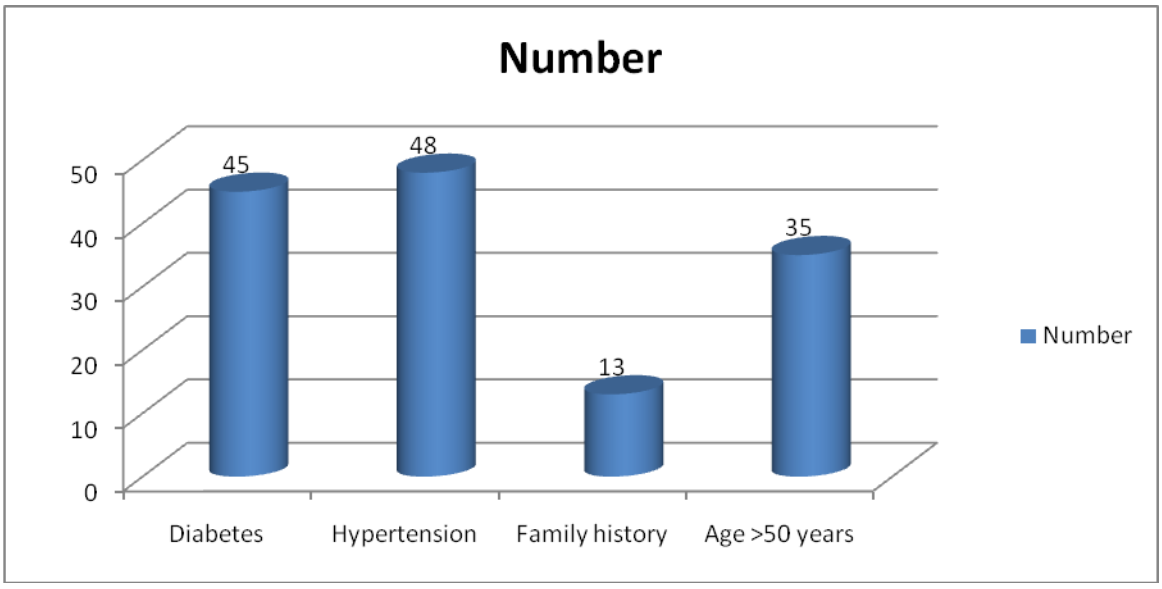
Visual acuity	Number	P value
Normal vision	2	0.01
Low vision	24	
Economic blindness	30	
Social blindness	12	

Table I, graph I shows that normal vision was seen in 2, low vision in 24, economic blindness in 30 and social blindness in 12. The difference found to be significant (P< 0.05).

Graph I Distribution of visual acuity



Graph II Risk factors among patients



Graph II shows that risk factors were diabetes in 45, hypertension in 48, family history was 13 and age >50 years was seen in 35 patients. The difference found to be significant (P< 0.05).

DISCUSSION

Cataract is one of the most common causes of visual impairment in the world. According to the World Health Organization (WHO), cataract is the leading cause of blindness all over the world, responsible for 47.8% of blindness and accounting for 17.7 million blind people. In India, 80% of the blindness is due to cataract. Various modifiable risk factors associated with cataract include UV exposure, diabetes, hypertension, body mass index (BMI), drug usage, smoking and socioeconomic factors; but advancing age is the single most important risk factor for cataract.[6]

Identification of major risk factors for cataract in the Indian setting will be crucial in planning strategies to reduce or delay the development of this condition. The knowledge of epidemiological situation and its trend is a vital requisite for planning and subsequent review of strategies for the prevention or control of any disease or health-related event in any particular area.[7] The present study was conducted to determine cases of cataract in adult population.

In this study, out of 68 patients, males were 38 and females were 30. We found that normal vision was seen in 2, low vision in 24, economic blindness in 30 and social blindness in 12.

Aarthi et al[8] found that out of 594 persons enumerated as eligible for the study, only 547 were examined with an overall response rate of 92.09%, whereas rest of the 47, who could not be contacted, were excluded from the study. Data analysis revealed a cataract prevalence of 24.86% which increased significantly with age. A significant association of cataract was also seen with low literacy status, outdoor occupation, family history of cataract and lower BMI; whereas no association was observed with other factors viz. sex, socio-economic status, diabetes mellitus and hypertension.

We found that risk factors were diabetes in 45, hypertension in 48, family history was 13 and age >50 years was seen in 35 patients. Sharma et al[9] conducted a study and found that the prevalence of cataract among the population studied was 62.8%. There was a significant increase in cataract with increase in age of the persons with cataract were operated at the time of interview. The major barriers were no one to accompany (25.5%) and absence of felt need (22.6%). Less than one-fifth (17.8%) reported the awareness of cataract as a condition affecting eye. The facilitating factors were free surgery in camps (83.7%), self-decision due to defective vision (69.7%) and quality of service provided (65.1%). More than one-half (56.7%) of subjects diagnosed for cataract during the survey were willing to be operated.

Chandrashekhar et al[10] found that the prevalence of unoperated cataract in people aged ≥60 was 58% in north India and 53% in south India. Nuclear cataract was the most common type: 48% in north India and 38% in south India, corresponding figures for PSC were 21% and 17%, respectively, and for cortical cataract 7.6% and 10.2%. Bilateral aphakia/pseudophakia was slightly higher in the south (15.5%) than in the north. The prevalence of any cataracts was similar in north (73.8%) and south India (71.8%). The prevalence of unoperated cataract increased with age and was higher in women than men. Aphakia/pseudophakia was also more common in women, either unilateral or bilateral.

CONCLUSION

Cataract is considered to be the major reason for blindness among adults. Risk factors were diabetes, hypertension, advancing age and positive family history.

REFERENCES

1. Delcourt C, Cristol JP, Tessier F, Léger CL, Françoise M, Papoz L and the POLA Study Group. Risk Factors for Cortical, Nuclear, and Posterior Subcapsular Cataracts: The POLA Study. Am J Epidemiol 2000;151(5):497–504.
2. Shakil M, Ahmed ST, Samiullah S, Perveen K, Sheikh S, Humaira A et al. Influence of hypertension and diabetes mellitus on senile cataract. Pak J Physiol 2008;4(2):30-2.
3. Hiller R, Robert D. Sperduto, Ederer F. Epidemiologic associations with cataract in the 1971-1972 National Health and Nutrition Examination Survey. Am J Epidemiol 1989;118(2):239–49.
4. Murthy GV, Gupta SK, Bachani D, Jose R, John N. Current estimates of blindness in India. Br J Ophthalmol 2005;89:257-60.
5. Tan JSL, Wang JJ, Mitchell P. Influence of Diabetes and Cardiovascular Disease on the Long-Term Incidence of Cataract: The Blue Mountains Eye Study. Ophthalmic Epidemiology 2008;15(5):317–327.
6. Weintraub JM, WillettWC, RosnerB, Colditz GA, Seddon JM, Hankinson SE. A prospective study of the relationship between body mass index and cataract extraction among US women and men. International Journal of Obesity 2002;26(12):1588-95.
7. Athanasiov PA, Casson RJ, Sullivan T, Newland HS, Shein WK, Muecke JS et al. Cataract in rural Myanmar: prevalence and risk factors from the Meiktila Eye Study. Br J Ophthalmol 2008;92(9):1169-74.
8. Aarthi R, Roy G, Kar SS, Srinivasan R. Prevalence of cataract among adults above 50 years in a rural community of Villupuram, Tamil Nadu. Int J Adv Med Health Res 2015;2:50-4.
9. Sharma M, Kumar D, Mangat C, Bhatia V. An Epidemiological study of correlates of cataract among elderly population aged 65 years in UT, Chandigarh. Internet J Geriatr & Gerontol 2009;4:2-7.
10. Chandrashekhar TS, Bhat HV, Pai RP, Nair SK. Prevalence of blindness and its causes among those aged 50 years and above in rural Karnataka, South India. Trop Doct 2007;37:18-21.