ISSN- O: 2458 - 868X, ISSN–P: 2458 – 8687
Index Copernicus Value: 49. 23

International Journal of Medical Science and Innovative Research (IJMSIR)
IJMSIR : A Medical Publication Hub
Available Online at: www.ijmsir.com
Volume – 3, Issue –3, May - 2018, Page No. : 181 – 184

Clinical Profile of Lens Induced Glaucoma: A Descriptive Study

[1]Dr Prabha Gupta, M.S., Senior Resident, Department Of Ophthalmology, Gajra Raja Medical College, Gwalior

[2]Dr Abha Shukla, M.S. Associate Professor Department of Ophthalmology, Gajra Raja Medical College, Gwalior

Correspondence Author: Dr Abha Shukla, M.S. Associate Professor Department of Ophthalmology, Gajra Raja Medical College, Gwalior, India

Type of Publication: Original Research Paper

Conflicts of Interest: Nil

Abstract

Introduction: Delayed presentation of cataract patients leads to increased vulnerability to develop Lens induced glaucoma (LIG), which remains one of the most important cause of irreversible loss of vision.

Objective- To study the clinical profile of patients with lens induced glaucoma.

Material and Method- patients aged ≥50 years attending out-patient department of ophthalmology with decreased vision<6/60 due to cataract were assessed for delay in seeking cataract surgery. Baseline demographic and clinical profile of these patients was recorded. Complete ophthalmic examination with pre and post operative visual acuity was done.

Results: Females account for 85% of cases, with phacomorphic glaucoma as predominant presentation. Sixty percent of patients presented after 10 days of symptoms. Pain was improved after surgery, however there was no satisfactory improvement in visual acuity after cataract surgery in majority. Only 12.5% of patients were having vision ≥ 6/18.

Keywords- lens induced glaucoma, cataract, delayed presentation

Introduction

Twenty million people in India are blind, of which 80% have preventable etiologies. Among these cataract account for 63.7% of total. [1]. Despite free cataract services available in most government institution as part of national health program to curb blindness, there are certain barriers among people to utilize health services.

Delayed presentation of cataract patients leads to increased vulnerability to develop Lens induced glaucoma (LIG), which remains one of the most important cause of irreversible loss of vision, especially so in the rural and lower socioeconomic population. This preventable condition, though rare in developed countries, is still prevalent in Low middle income countries like India. Hence this study was done to study the clinical profile of patients with lens induced glaucoma.[2]

Material and Method

This was a part of prospective hospital based descriptive study conducted in department of ophthalmology in a tertiary care hospital in North India. Total of 356 patients aged ≥50 years attending out-patient department of ophthalmology with decreased vision<6/60 due to cataract were assessed for delay in seeking cataract surgery [3] as part of original study. Among these, 40 patients having Lens induced glaucoma have been included. The questionnaire to assess reason for delaying surgery was presented to all eligible participant including those having LIG. We have discussed baseline demographic and clinical profile of these patients in this paper. Complete ophthalmic examination with preoperative and

postoperative visual acuity was done. Visual acuity was done by snellen's chart and the socio economic status was defined as per BG Prasad`s socioeconomic scale 2016.[4] Cases were diagnosed as phacomorphic glaucoma based on presence of pain and redness of the affected eye associated with the presence of corneal oedema, shallow anterior chamber, dilated fixed pupil, intumescent cataractous lens, and raised intraocular pressure above 21 mm Hg except in those who has already received anti glaucoma drug . and phacolytic glaucoma characterised by corneal oedema, normal or deep anterior chamber containing floating lens particles and/or pseudohypopyon in severe cases and hypermature morgagnian cataractous lens in some cases. [2]All patients with LIG underwent Mannual small incision cataract surgery after controlling intra ocular pressure.

Results

Total of 40 patients with LIG were included in study of which 34 (85%) were females and 6 (15%) were males with the female: male ratio of 6:1.There age ranged from 55 to 81 years. Age- and sex-wise distribution is as shown in (Table 1). There were 31(77.5%) cases of phacomorphic and 9(22.5%) of phacolytic glaucoma. The ratio of phacomorphic: phacolytic was 3.4:1. About 72.5% of patients belongs to lower socioeconomic class and 27.5% belong to middle class . Among these 8(20%) patients were from surrounding area less than 10 Km area, while majority 30(70%) were from within 100 Km distance. Fourteen (35%) patients were pseudophakic in other eye. (Table 2).

Age (Yrs)	Male Number of patients	%	female Number of patients	%	Total Number of patients	%
51–60	0	0	10	25	10	25
61–70	5	12.5	18	45	23	57.5
71–80	1	2.5	5	12.5	6	15
More than 80	0	0	1	2.5	1	2.5
Total	6	15	34	85	40	100

Table 1: showing age and sex distribution of patients

	Numbers of patients	%(percentage)
BG Prasad classification		
Upper class		
Upper middle class	1	2.5
Middle class	10	25
Lower middle class	17	42.5
Lower class	12	30
Distance from hospital in Km		
<10	8	20
10 - <50	16	40
50- <100	14	35
100 - 100+	2	5
Other eye status		
PSEUDOPHAKIC	14	35
PHAKIC	26	65

Table 2: showing demographic profile and other eye status of patients

ll of them were having visual acuity of Hand movement or less. In 17 patients projection of rays was inaccurate and in three cases, even perception of light was doubtful. The mean preoperative intraocular pressure was 44 mm Hg (range 24–68mmHg). The time gap between onset of acute symptoms of pain, redness, marked reduction of vision, and reporting of patients to hospital is as shown in Table 3. Four cases (10%) presented to the hospital within 48 hours of onset of the pain. Twenty four patients (60%) presented to the hospital after 10 days. (Table 3)

Days	Number of patients	%
1	0	0

2	4	10
3	2	5
4	3	7.5
5	3	7.5
6 to 10	4	10
11 to 15	12	30
16 to 30	9	22.5
more than 30	3	7.5

Table 3 : showing time gap between symptoms and presentation to hospital

The postoperative vision of patients is as shown in Table 3. It can be seen that 12.5% of the patients recovered good vision (6/18 or better) after surgery. Low vision/visual impairment (<6/18–6/60) occurred in 9 (22.5%) cases. Blindness (<6/60–PL) occurred in 26 (65%) cases. (Table 4).

Vision	Number of patients	Percent
6/6–6/18	5	12.5
<6/18–6/60	9	22.5
<6/60–3/60	7	17.5
<3/60–1/60	10	25
<1/60– PL	9	22.5
Total	40	100

Table 4: showing post-operative visual acuity of patients

Discussion

Cataract remains the most important cause of blindness in developing countries, affecting mostly the older population. Delayed reporting for treatment leads to serious complications like lens-induced glaucoma causing irreversible visual loss. In spite of easy availability of surgical facilities with concerted efforts of the National Program for Control of Blindness (NPCB), government and non-governmental organisations and private practitioners, cataract surgery being a very cost effective and rewarding surgery, still many people are becoming blind due to lack of awareness about significance of early management. Elderly females from lower socioeconomic group are the worst affected. Present study shows that phacomorphic glaucoma is more common than phacolytic (3.4:1) however a ratio of 2.6:1 was found in a study from Nepal [2]. LIG was more common in females, with a ratio of 5.6:1. It is possible that socio-economic and cultural constraints play a role leading to neglect and late presentation of cataract in this region among females. The visual acuity was markedly reduced in all cases due to cataract as well as due to loss of corneal transparency or ongoing optic atrophy, secondary to a sudden rise of intraocular pressure. In this study, majority of the patients didn't had visual improvement or only had marginal improvement in vision after the the surgery. The visual outcome is worse in our series than in other studies.[5,6] This is probably because the majority of the patients reported later than ten days after the onset of pain. Though the pain improved, however there was no remarkable improvement in visual acuity after cataract surgery in most cases.

The important cause of poor postoperative vision has been attributed to surgical complications [7], however, among LIG , late reporting for treatment also emerged as one of the most important causes for poor postoperative vision following cataract surgery[2,8]. Thirty five percent patients were pseudophkic in other eye still they delayed the surgery of affected eye as they could see with pseudophakic eye. This warrants the need for counselling of patients for early second eye surgery at time of first surgery itself.

The delayed reporting of these patients, despite easily accessible cataract surgery reflects poor health education, acceptance of poor vision as part of aging, fear of operation, lesser expectations (ability to manage daily

work, could see with other eye) and socioeconomic constraints.. Another reason for late reporting among very elderly visually handicapped persons were left to their own fate as no one bothered to bring them to the hospital.[3] Also many people take treatment for redness and pain in eyes from some local practitioners and are referred to higher Centre for surgery as the outcome is poor and associated with increased surgical complications, this increases the time gap period between symptoms and presentation to the hospital.

Conclusion

Despite the advances in cataract surgery , the result of cataract surgery with intraocular lens implantation in LIG is not satisfactory because of late presentation .There is need for awareness about complication of delaying cataract surgery and poor visual outcome in elderly population with LIG.

References

1-Government of India, National Survey on Blindness and Visual Outcome after Cataract Surgery, 2001-2002, vol. 77, National Programme for Control of Blindness, Ministry of Health, Government of India, New Delhi, India, 2002.

2- Pradhan D, Hennig A, Kumar J, Foster A. A prospective study of 413 cases of lens-induced glaucoma in Nepal. Indian journal of ophthalmology. 2001 Apr 1;49(2):103.

3- Gupta P,Varandani S , Shukla A. Barriers to the acceptance of cataract surgery in a hospital based population: A descriptive study. Indian Journal of Clinical and Experimental Ophthalmology 2018(In Press)

4- Kuppuswamy Shaikh Z, Pathak R. Revised Kuppuswamy and BG Prasad socio-economic scales for 2016. International Journal of Community Medicine and Public Health. 2017 Mar 28;4(4):997-9.

5-Lim TH, Tan DT, Fu ER. Advanced cataract in Singapore--its prognosis and complications. Annals of the Academy of Medicine, Singapore. 1993 Nov;22(6):891-4.

6-Prajna NV, Ramakrishnan R, Krishnadas R, Manoharan N. Lens induced glaucomas-visual results and risk factors for final visual acuity. Indian journal of ophthalmology. 1996 Jul 1;44(3):149.

7 K. Kumar, V. P. Gupta, and U. Dhaliwal, “Causes of sub-optimal cataract surgical outcomes in patients presenting at a teaching hospital,” Nepalese Journal of Ophthalmology, vol. 4, no. 1, pp. 73–79, 2012

8 Kothari R, Tathe S, Gogri P, Bhandari A. Lens-induced glaucoma: the need to spread awareness about early management of cataract among rural population. ISRN ophthalmology; 2013 , Article ID 581727, 3 pages http:s//dx.doi.org/10.1155/2013/581727