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Post Cataract Surgical Follow-Ups: Need to Revisit to Existing Guidelines

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ABSTRACT

Background: Cataract surgery is one of the component of management of blindness, the overall management includes post-surgical regular follow-up and provision of additional aid. Objective of present study is to document post-surgery follow up and reasons for non-adherence.

Methodology: Hospital based study, purposive sampling; 600(300 males and 300 females) who underwent cataract surgery in a tertiary care teaching hospital. Subjects were counselled for the standard guidelines and were followed to document the follow up compliance as per the standard protocols. Those who were lost to follow up were contacted by phone calls to understand the reasons for non-adherence.

Results: Mean age 60 years+_9.1 years. The lost to follow up rate after second follow up was 16% and after third follow up was 82%; most common reason for non-adherence were: poor perceived needs (38%) followed by financial reasons (17.65%).

Conclusion: In spite of appropriate pre-surgical counselling there was high lost to follow up due to poor perceived need, with advancement of the surgical techniques post-surgery follow-up needs to be revised for better adherence. Training of support staff for counselling can improve adherence.

Keywords: Blindness, cataract, post cataract follow up, non-compliance

INTRODUCTION

Cataract is a significant global delinquent but is curable by simple yet cost effective surgical intervention; still cataract remains the most common cause of blindness worldwide due to non-adoption of surgeries for various reasons.[1]Government of India launched national program for control of blindness (NPCB) in the year 1976 with the goal of reducing the prevalence of blindness to 0.3% by 2020.[2] As per the latest NPCB reports, there are about 18.7 Million blind people in India, out of which 9.5 Million have cataract related blindness.

Undertaking Cataract surgery itself will not result into the end of morbidity, however surgery is only one of the component of management of blindness. Overall management of blindness includes post-surgical regular follow-up and provision of additional aid if required.

There are evidences that in developing countries, the post-operative follow-up rates are as low as 20 to 30% [3]. Among all, few common causes for lost to follow-ups are poor transportation infrastructures, additional costs (direct/indirect) to patients and failure to communicate the benefits of follow up, which can include distribution of corrective glasses[3,4]. Although there are guidelines for post-surgical follow up under NPCB, but there are no remedial provisions if the patients do not follow-up as per the schedule, resulting in high non-compliance to follow up. Unfortunately, under NPCB there is no provision to trace back or contact patients who are not coming for follow-up.

Cataract surgery follow ups are also important as they are surrogate indicators of assessment of performance against standard protocols; further which assists the program managers and surgeons to improve the quality of services. Thus, the present study was conducted to have a scoping into the same and assist the policy managers to redefine the schedule of follow up if need be.

MATERIALS AND METHODS

Present study was a longitudinal study carried out in a tertiary care teaching hospital in Western India, where all patients admitted in the Department of Ophthalmology GMERS Sola between January 2016 to June 2016 were included, however only those subjects who had given consent to be a part of study. In addition to this, patients who were operated for the first time for cataract, residents from Gujarat and with an access for mobile tracing (self or household/close relative) were included as study sample for the present study.

Sample Size:- Purposive sampling was adapted for recruiting the target population. A total of 600 purposive selected subjects satisfying the above inclusion criteria; 300 Males and 300 Female patients (out of total 1200 cataract surgeries conducted in the department during the study period) were included.

Study Data Collection & Variables: All patients under went preoperative ocular examinations by an ophthalmologist with slit lamp after dilatation of pupil. Patient's demographic information and surgical histories were recorded, as were uncorrected visual acuity and best-corrected visual acuity (with glasses) in both eyes, presence of ocular comorbidities, and biometric measurements to identify the power of intra ocular lens needed for surgery, intraocular pressure and fundus examination .Patients were advised for blood investigation which includes complete blood count, random blood sugar, HIV, HBsAG and blood pressure. History of systemic illness and any medication history were also taken.

Post-Operative Follow-Up: As per the standard protocols the schedule of post-operative follow up is as follows:

1. *First follow up:* Immediate Post-operative within 24 hours after surgery to look for apposition of wound or wound leak, keratitis, hyphema or hypopyon, fibrinous reaction, IOL centration etc.
2. *Second follow up: After one week of the surgery* same clinical examination was repeated mainly to see for inflammation or any untoward reaction after first follow up.
3. *Third follow up:* After 30-45 days of surgery to check visual acuity, fundus and slit lamp examination and refraction to prescribe post-surgical glasses.

After Second and third visit, all the lost to follow up patients were contacted through mobile and reasons for non-follow up(s) were recorded by a trained data collector well versed in vernacular language. Collected information from patients were de-identified and entered in MS Excel for statistical analysis.

RESULTS

Present analysis included subset of 600 (300 males and 300 females) patients, purposively selected from pool of 1200 surgeries conducted during the study period.

Table 1 describes socio demographic profile of the study participants. Mean age of the study population was 61 years (standard deviation +9.1). Majority of the study participants 249 (41.50%) amongst the age group between 60–69 years. Early onset of cataract i.e. amongst subjects with less than < 50 years was seen in only in 49 (8.17%) cases. Majority were belongs to Hindus 235 (78.25%) and rest 52 (17.25%) were Muslims. Out of total samples included in the present study, about 49% (291) were illiterate. By occupation, about 40% were not working, rest were engaged in small business 44 (14.68%) and government job 14 (4.70%).

Table 1 : Distribution of the study population as per Socio Demographic Profile

Variables	Male (n=300)	Female (n= 300)	Total (n=600)
Age (In Yrs)			
< 50	34 (11.51)	15 (5.11)	49 (8.17)
50-59	68 (22.58)	98 (32.69)	166 (27.67)
60-69	136 (45.52)	113 (37.65)	249 (41.50)
>= 70	62 (20.39)	74 (24.55)	136 (22.66)
Religion			
Hindu	241 (80.44)	235 (78.25)	476 (79.32)
Muslim	59 (19.56)	52 (17.25)	111 (18.50)
Christian	0	13 (4.5)	13 (2.18)
Education Status			
Illiterate#	101 (33.67)	190 (63.28)	291 (48.48)
Primary*	100 (33.23)	73 (24.28)	173 (28.84)
Secondary**	64 (21.25)	28 (9.34)	92 (15.34)
Higher Secondary***	26 (8.55)	9 (3.10)	35 (5.84)
Graduate & Post Graduate	9 (3.30)	0	9 (1.5)

Figure in parenthesis indicate percentage
Illiterate = unable to read and write, * Primary Education = education up to 7th Standard, ** Secondary Education = Education from 8th to 11th , *** Higher Secondary = 12th Standard Complete

Table 2 Distribution of the studied population according to socio economic classification

Social - Economic Classification	Per Capita Monthly Income (Prasad's Classification)	Total (%)
I	100 & Above	6 (1.00)
II	50 – 99	14 (2.40)
III	30 – 49	24 (4.06)
IV	15 – 29	345 (57.47)
V	< 15	211 (35.07)

Figure in parenthesis indicate percentage

Table 3: Gender specific reasons For non compliance to Post-Surgical Follow-Up (n=301)

Gender	Male (%)	Female (%)	Total (%)
Loss of Wage (Self or household)	187 (83.1)	38 (16.9)	225 (19.7)
No one to accompany	21 (13.5)	134 (86.5)	155 (13.6)
Distance from hospital	144 (47.2)	161 (52.8)	305 (26.7)
No Need for follow up	136 (52.3)	124 (47.7)	260 (22.8)
No transport	38 (47.5)	42 (52.5)	80 (7.0)
Festival/ Marriage/ Social function	49 (41.9)	68 (58.1)	117 (100)

Table 4 Compliance of the studied Population as per the standard guidelines

Subjects	Male (n=300)	Female (n=300)	Total (n=600)	Lost to F up
First Follow Up	300	300	600	0
Second follow Up (Within 7-10 days)	239	264	503	97
Third Follow up (after 30-45days postsurgery)	48	61	109	339

Table 2, describes the socio economical classification of studied population as per Modified Prasad's classification; majority belonged to Class IV (57%) and V (35%).

Out of total 600 patients enrolled in the present study, 100% subjects could be followed immediately (first follow up) with in 24 hrs. Of surgery, however within 7 – 10 days post-surgery (Second Follow up) 83.4 % (503) could be followed, but after 30-45 days post-surgery (Third follow up) only 18 % (109 subjects) could be followed. It means that 82% of the enrolled subjects had not fulfilled the criteria of completeness of the follow up as per the standard guidelines.

Out of 300 enrolled male subjects around 20% (n=61) and 6% females (n=36) did not returned back for the second follow up with in two weeks of schedule appointment. A reminder mobile call was done to understand the reason for not adhering to the standard protocol.

After Second follow up around 64% males (n=191) and 68% Females (n=203) never retuned for the third follow up. Those who had not followed up the third follow up were contacted by the mobile number and were inquired for non-follow ups.

Overall out of total subjects enrolled around 18% followed the standard protocols. Table no. 3. describes the reasons for the noncompliance to the follow up , multiple reasons were cited for, the most common reason cited was distance of the hospital from place of residence and poor transport / connectivity (33.7%), followed by no need for follow up (22.8%). However as per the gender the most common reason cited by males for non-follow up was loss of wage (83.1%) while amongst female it was distance and poor transport (35.8%). On asking about the correct schedule after third follow up of the Post-surgical follow up 83 % of Males (n=239) and 91% (n= 273) of the females could actually narrate the correct follow up schedule indicating the proxy of quality of counselling done during pre-surgery.

DISCUSSION

Present study undertaken at GMERS Medical College, Sola is an attempt to document the follow up rates post cataract surgery and to have an insight into the reasons for drop outs in post-surgical follow up. In the present study in-spite of pre surgical counselling regarding the need for post-surgical follow ups, a high dropout was documented.

Post-surgery follow up is essential for early diagnosis and treatment of complication if any and to give the final correction with prescribing the spectacles. However, with recent advancements in surgical techniques and skills the Cataract surgery has almost become a day care procedure. In the present study the perceived difficulty of studied participants in coming for post-surgery follow up was also assessed, most common overall reasons cited for non-compliance were, distance of the hospital from place of residence and poor transport / connectivity (33.7%) , followed by no need for follow up (22.8%). However, the most common reason cited by males for non-follow up was loss of wage (83.1%) while amongst female it was distance and poor transport (35.8%). This probably reflects the status of females in the society. Similar study in rural china showed that reasons for difficulties in follow ups as follows: unaware (69.5%), believed unnecessary (17%), lacked transportation (4.2%), physical limitation (3.4%) and others 5.9%. [4.]

Its important to deliberate on the second common reason cited for noncompliance was not perceived it necessary. The possible explanation could be refraction becomes stable by second visit and hence they don't feel it worth spending money and time to visit for third follow up. The uses of conventional methods are hardly used now a days and majori-

ty of surgeries are performed by PHACO. There is an urgent need for further studies to document the incremental increase in the visual acuity over follow ups. More evidences are required for assisting the policy planners to conclude if third follow-up is necessary in post-cataract surgery specific to Indian population. An extra follow-up burden indirectly to patients (financially or physically) but also equally burden to healthcare workers working in a tertiary healthcare facility. Therefore, there is an urgent need to conduct a detail insight and stake holder opinion with private providers, NGO's and public ophthalmologists to review for appropriate policy change earliest possible.

CONCLUSION

In spite of appropriate pre-surgical counselling and confidence building, a very high documented lost to follow up rates in the present study reflects an urgent need to review post cataract follow up guidelines. Provision of pre surgical counseling by a trained counsellor or by nursing staff can assist in enhancing the follow ups. Keeping in view of the other responsibilities with the surgeon and nursing staff, a Model engaging other support staff like optometrists, Ophthalmic assistants should be explored for counselling for post cataract follow ups.

Policy Implication: This study sole could not able to provide the essence of policy change, but certainly this could give an insight of call for policy transition at national level. Also, it adds value to understand the reasons for lost-to-follow up on the third visits during post-cataract surgery.

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