

Assess the impact of cataract surgery on quality of life of individuals

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Abstract

Introduction: Dang is the smallest, poorest and Backward tribal District of Gujarat state in India. **Aim:** To understand the impact of cataract surgery, the study was conducted in two phases- pre and post operative phases. The study tools included predesigned questionnaire with subjects, family members and neighbours. Data with reference to employment, income, health, nutrition, dependence on family member including school going child, effect on education of children, social visit, mental status are collected before and after cataract surgery. **Subjects and methods:** Patients were selected from 73 villages of Dang district. The patients were followed up within a week of operation, after 15 days and after 45 days. They were followed up after monthly intervals. A predesign interview questionnaire was used for data collection. Data was collected by personal interviews from patients, relatives and neighbors. Follow up was done by meeting them personally. **Results:** 80% of patients were involved in outdoor work. Most of the patients were in LOWER socio-economic group. 72 % of individuals could not pursue their occupation due to cataract. 84% of individual had no income before surgery. After operation 18% of pts. were doing some type of work and started regular income. 12 % individuals could not perform activity of daily living due to generalized weakness. The mental status significantly improved after surgery for cataract. Social visits was lost in majority of patients pre-operatively which was significantly improved post-operatively. Dependency was present in majority of patients (76%) pre-operatively which was significantly improved post-operatively (10%). Vision of most of the patients was in the category of 6/30 - 6/48 pre-operatively which were significantly improved after cataract surgery as majority were in the category of 6/12 – 6/30. **Conclusion:** The study suggests that cataract surgery hampers the activity of daily living and has effect on the overall quality of life. Timely cataract surgery definitely improves the Activity of Daily Living and in turn Quality of Life.

Keywords: cataract surgery, quality of life.

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INTRODUCTION

Dang is the smallest, poorest and Backward tribal District of Gujarat state in India. 93.96 % of the population of the district is tribal and 0.73 % of population belongs to backward class. 65% of families are identified as below poverty line. To understand the impact of cataract

surgery, the study was conducted in two phases-pre and post operative phases. Study subjects included 50 individuals (27 males and 23 females) who were operated during Nov '06 to Mar '07 in 73 villages of Dang district. The study tools included predesigned questionnaire with subjects, family members and neighbours. Data with reference to employment, income, health, nutrition, dependence on family member including school going child, effect on education of children, social visit, mental status are collected before and after cataract surgery.

OBJECTIVES

1. Could you continue your work when you develop cataract?
2. Did you borrow money due to less income before operation?
3. Could you perform activity of daily living on you own or had to depend upon family members?

4. How cataract affected the condition of your family in respect of health, nutrition, education and monetary condition?
5. Did you feel loneliness or depressed before operation?
6. Could you go for social visits / meet your friends in village?
7. Could you see clearly after surgery? Was there any complication?
8. Quality of life after cataract surgery with reference to no. 1 to 6

Q. No. 1 to 6 was applicable to patients before and after surgery while no. 7 to 8 was applicable post operatively.

Subjects and Methods

Patients were selected from 73 villages of Dang district. First 50 patients which were operated for cataract during Nov.06 to March 07 were selected for study. The patients were followed up within a week of operation, after 15 days and after 45 days. They were followed up after monthly intervals. A predesign interview questionnaire was used for data collection. Data was collected by personal interviews from patients, relatives and neighbors. Follow up was done by meeting them personally.

RESULTS AND DISCUSSION

Table 1: Age Groups Vs Sex

Age Group	Sex		Total
	M	F	
Less than or Equal to 50 yrs	3	2	5
51 - 60 yrs	4	5	9
61 - 70 yrs	17	16	33
More than 70 yrs	3	0	3
Total	27	23	50

Majority of the patients were above 50 yrs. of age. There were more males than females.

Table 2: Occupation Vs Sex

Occupation	Sex		Total
	F	M	
Outdoor	21	24	45
Indoor	2	3	5

Chi Square (X^2) = 32, P= 0.0001, Highly Significant

45 patients (21 females and 24 males) were working in farms. 2 males were carpenter, 1 male was working as plumber, 2 females working as vegetable vendors.

Table 3: Socio-economic Classification (Modified B. G. Prasad)¹

S-E Class	Frequency	Percent
More than 2310	-	-
1145-2309	4	8.0

645-1144	6	12.0
345-644	2	4.0
Less than 345	38	76.0
Total	50	100.0

Most of the patients were in LOWER socio-economic group. Following tables 4 to 10 show that the factors which were present in majority of patient pre-operatively were significantly reduced in post-operative patients.

Table 4: Cataract and effect on occupation

FACTOR	Pre-Operative		Post-Operative		P Value (Paired T Test)
	Yes	No	Yes	No	
Effect on Occupation	36 (72%)	14	9 (18%)	41	0.0018

72 % of individuals could not pursue their occupation due to cataract. 54% went back to their occupation after operation. 18% had good vision but family members did not allow them to pursue their occupation due to old age.

Table 5: Cataract and effect on income

FACTOR	Pre-Operative		Post-Operative		P Value (Paired T Test)
	Yes	No	Yes	No	
Effect on income	36 (72%)	14	9 (18%)	41	0.0018

84% of individual had no income before surgery. After operation 18% of pts. were doing some type of work and started regular income².

Table 6: Cataract and activity of daily living

FACTOR	Pre-Operative		Post-Operative		P Value (Paired T Test)
	Yes	No	Yes	No	
Inability to perform activity of daily living	42 (84%)	8	6 (12%)	44	0.0004

12 % individuals could not perform activity of daily living due to generalized weakness.

Table 7: Cataract and feeling of loneliness

FACTOR	Pre-Operative		Post-Operative		P Value (Paired T Test)
	Yes	No	Yes	No	
Mental status	37 (74%)	13	4 (8%)	46	0.001

The mental status significantly improved after surgery for cataract.

Table 8: Cataract and social visits

	Pre-Operative		Post-Operative		P Value
	Lost	Not Lost	Lost	Not Lost	
Social visits	33 (66%)	17	8 (16%)	42	0.001

Social visits was lost in majority of patients pre-operatively which was significantly improved post-operatively.

Table 9: Cataract and dependency

FACTOR	Pre-Operative		Post-Operative		P Value (Paired T Test)
	Yes	No	Yes	No	
Dependency	38 (76%)	12	5 (10%)	45	0.00031

Dependency was present in majority of patients (76%) pre-operatively which was significantly improved post-operatively (10%).

Table 10: Outcome of surgery

Outcome of surgery	Pre-operative		Post-operative		P value
	M	F	M	F	
6/6	-	-	-	-	0.0041
6/12	-	-	7	4	
6/18	-	-	6	9	
6/24	3	5	9	6	
6/30	6	6	2	2	
6/36	6	5	3	2	
6/42	3	5	-	-	
6/48	7	2	-	-	
6/54	2	-	-	-	
6/60	-	-	-	-	
Total	27	23	27	23	

Vision of most of the patients was in the category of 6/30 - 6/48 pre-operatively which were significantly improved after cataract surgery as majority were in the category of 6/12 – 6/30.

Table 11: Complications after surgery

Complication	Male	Female
Yes	1	2
No	26	21

Complication occurred in 6% patients after surgery which were minor (E.g. Irritation of eyes, watering, redness, serous discharge) and treated appropriately.³

CONCLUSION

The results showed that before the surgery the patient were not able to perform activity of daily living like taking bath, moving in the house, seating outside in the courtyard, going for defecation without the help of family members. After the operation they were able to perform activity of daily living. Due to cataract they were unable to go to farm but after operation as their vision improved they started going to farm. Before operation due to impaired vision they were unable to walk independently, move around the village, meet their friends and watch television. After operation as their vision was improved they could move freely in the house, started seating in the courtyard, visiting friends and attending social functions. This leads to improvement in confidence. The study suggests that cataract surgery hampers the activity of daily living and has effect on the overall quality of life. Timely cataract surgery definitely improves the Activity of Daily Living and in turn Quality of Life.

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