

Barriers to the uptake of cataract surgery in a border district North India

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Abstract: **Title:** Barriers to the uptake of cataract surgery in a border district North India. **Objective:** To assess the barriers for the acceptance of surgery among patients with cataract in a border district north India. **Materials and Methods:** A short-term descriptive study was conducted in patients with cataract presenting in eye camp in a border district north India. The pretested semistructured questionnaire was used to obtain information regarding various sociodemographic variables, awareness about cataract and barriers for the surgery. Informed consent was taken from each respondent. Data was managed and analyzed by using Microsoft Excel 2011 version. **Results:** There were 60 patients (28 men and 32 women); Majority were found to be illiterates (70%), which were mainly females. Majority of the respondents belonged to lower class (56.4%) and (43.6%) belonged to medium class. The most frequently cited reason for not being able to undergo surgery was distance from hospital (66.6%), higher proportion of women mentioned this reason when compared to men. Other reasons were could not afford treatment (60%), Lack of transport (56.6%) and no one to accompany (56.6%). **Conclusion:** Affordable services have to be provided within the reach of the people to remove existing barriers

Keywords: Border district, cataract, barrier

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I. Introduction

According to recent WHO reports, globally 285 million people were visually impaired, of those 39 million were blind. The two main causes of visual impairment in the world are uncorrected refractive errors (42%) and cataract (33%). Cost-effective interventions to reduce the burden of both conditions exist in all countries. [1]

In India cataract alone contributes to 63% of total blindness and this burden will increase over the years with an addition of 3.8 million people above 35 years who are expected to develop cataract related blindness each year.[2]

Recognizing the phenomenal burden of blindness due to cataract within the country, India started a National Program for the Control of Blindness in 1976. India identified a rapid assessment technique for blindness/ cataract blindness.[3] This program has been adapted as a model in many other countries as well.

There is no known effective means of preventing cataract. The only cost effective intervention available is cataract surgery and it reduces the major burden of avoidable blindness. Many barriers exist for undergoing cataract surgery despite the availability of surgical services.

The state of Jammu and Kashmir is predominantly hilly. Poor road connectivity, difficult hilly terrain, and small scattered settlements contribute to problems of access to health services. People living in hilly terrain may have different perceived needs and morbidity pattern. During the past decade, there are numerous studies highlighting the morbidity pattern in different geographical areas of India, but none relating to the border district in North India. The results of this study are expected to help policy makers in planning specialized services for people residing in this area of North India.

II. Material and Methods

An eye camp was organized at border district North India from 30 Jan to 2 Feb 2017. This short-term descriptive study was conducted there for cataract patients diagnosed in eye camp.

After obtaining informed consent patients were interviewed using a semi-structured and pretested questionnaire. Baseline information including the name, age, sex, address, marital status, religion, occupation, type of family, socio economic status of each person was recorded. A questionnaire surveying knowledge about cataract and barriers to acceptances of cataract surgery was administered in local language. The questions on barriers were devised from the existing literature and required yes/no responses only. Seventeen barriers

relating to patient attitude, services delivery, cost, and affordability were investigated. The English-language version of the proforma and questionnaire is appended.

An ophthalmologist conducted the physical examination and the diagnosis of cataract was based on torchlight and distant direct ophthalmoscopy. Vision was assessed by Snellen’s chart and the World Health Organization definitions of normal vision (best corrected visual acuity (BCVA) $\geq 20/60$ in the better eye), visual impairment (BCVA $< 20/60$ but $\geq 10/200$ in the better eye), and blindness (BCVA $< 10/200$ in the better eye) were used.[1]

Data was managed and analysed by using microsoft excel 2011 version. For descriptive statistics mean, frequency and percentage were

III. Results and Discussion

This study includes 60 patient among them 32 were female and 28 were male with age ranging from 35 to 75 years. The sociodemographic and other characteristic were given in Table 1. Majority were found to be illiterates (70%), which were mainly female. 56.4% respondents belonged to lower class and 43.6% belonged to medium class.

Table1. Sociodemographic and other characteristic of 60 patients with cataract

Gender	Male (%)	Female (%)	
	28 (46.7%)	32 (53.3%)	
Literacy	Literate (%)	Illiterate (%)	
	18 (30%)	42 (70%)	
Social class	Medium Class (%)	Lower Class (%)	
	26 (43.3%)	34 (56.7%)	
Cataract	Unilateral (%)	Bilateral (%)	
	23 (38.3%)	37 (61.7%)	
Stage	Immature (%)	Mature (%)	Hyperature (%)
	22 (36.7%)	32 (53.3%)	06 (10%)

Among the 60 patients of cataract 37 were have bilateral cataract and the figure depicts that 53 % diagnosed as mature cataract, 37% of immature and 10% were diagnosed as hyperature.

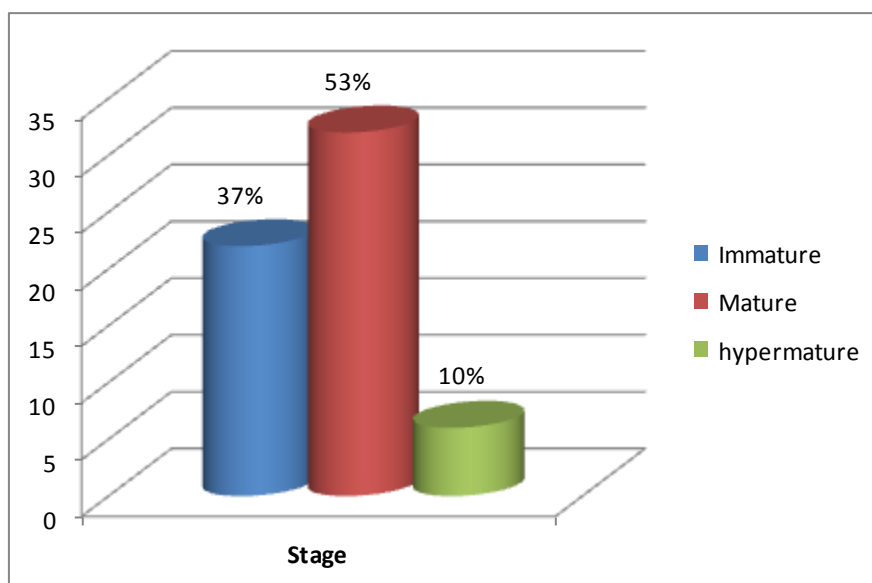


Fig: Stage of cataract

Table2. Distribution of barriers for cataract surgery

Barrier	Sex of Interviewee		Total
	Male 28	Female 32	
Not aware	8(28.5%)	12(37.5%)	20(33.3%)
Can't afford treatment	16(57%)	20(62.5%)	36(60%)
Can see with other eye	8(28.5%)	17(53.1%)	25(41.6%)
Not aware of place of treatment	3(10.7%)	7(21.8%)	10(16.6%)
God's wish	6(21.4%)	12(37.5%)	18(30%)
No trust in treatment	2(7.1%)	5(15.6%)	7(11.7%)
Not sure when to take treatment	6(21.4%)	14(43.7%)	20(33.3%)
No escort to treatment	12(42.8%)	22(68.7%)	34(56.6%)
Waiting for it to get mature	2(7.1%)	8(25%)	10(16.6%)
Distance from hospital	14(50%)	26(81.2%)	40(66.6%)
Lack of transport	12(42.8%)	22(68.7%)	34(56.6%)

In table 2 the most frequently cited reason for not being able to undergo surgery was distance from hospital (66.6%). However, a higher proportion of women mentioned this reason when compared to men. Other major barriers came out in the study were could not afford treatment (60%), Lack of transport (56.6%) and no one to accompany (56.6%). In both of them the proportion of females was also higher.

Similar study in south Karnataka reported the main barriers noted in cataract blinds were "No one to accompany" and "Waiting for maturity"(27.2% each).[4]

Another study also reported that the major barriers (operative in >55% patients) were more often related to patient attitude like (ability to manage routine work, cataract not mature, could see clearly with the other eye, busy with work), than to issues of service delivery or cost and affordability (insufficient family income). Although 76% of the patients reported insufficient family income as a barrier, only 27% were worried about the cost of surgery.[5]

Cross sectional study conducted by other researcher to know the knowledge, attitude and practices regarding cataract surgery among senile cataract cases, reported that 70.69% cases wanted operation only when able to see nothing.[6]

Other researcher also found "cataract has yet to mature" as the major barrier in 24% of people bilaterally blind and 33% of those unilaterally blind due to cataract reported to the service facility at least once, but were told to wait. Males mentioned this more often as a barrier than females in both the bilateral and unilateral category of cataract blind (P 0.001). Second barrier mentioned (21.6% of the bilaterally blind) was "no one to accompany" the patients to the surgical centers. Females (24.9%) stated this nearly twice as frequently as males (14.2%) (P 0.001) and "Fear of operation" was the third major barrier for 12.3% of the bilaterally blind population.[7]

Lack of escort, fear of surgery, socioeconomic reasons, adverse media reports of isolated failures of surgery and surgery not needed were the reasons for not operating the cataract reported in another study.[8]

IV. Conclusion

The primary eye care should be easily accessible, affordable, and of good quality, supported by the secondary and tertiary health care systems under the supervision of qualified doctors. To remove the existing barriers, services has to be provided at the door step or within the reach of the people near the border area of

North India. Outreach program to identifying persons with visual disturbances and providing surgical intervention for such areas will be ideal.

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