

**Barriers for Delay in Cataract Surgery in Unoperated Other Eye**Surya Sekhar Das<sup>1</sup>, Radhakrishna Mandal<sup>2</sup>, Anup Mondal<sup>3</sup>, Rupam Roy<sup>4</sup><sup>1</sup>Senior Resident, Midnapore Medical College, Dept of Ophthalmology, West Bengal, India<sup>2</sup>Associate Professor, Midnapore Medical College, Dept of Ophthalmology, West Bengal, India<sup>3</sup>Associate Professor, Midnapore Medical College, Dept of Ophthalmology, West Bengal, India<sup>4</sup>Associate Professor, NRS Medical College, Dept of Ophthalmology, West Bengal, India

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**Abstract:****Aim:** To evaluate the reasons for delay in cataract surgery in unoperated other eye of patient who is pseudophakic in one eye.**Material and Methods:** In this prospective questionnaire based – single centre study, 200 patients with advanced cataract in one eye and pseudophakia in other eye for last 2 years were selected.**Results:** The patients were in the age group 55 years and above with Male: Female ratio of 70:30. The major reasons for delay in cataract surgery were lack of accompanying person (55%), loss of work / income (27%), did not feel necessity of surgery (11%), unsatisfactory vision in operated eye (6%), and coexisting systemic disease (5.5%). 12% patients believed that winter was appropriate time for cataract surgery. It is important to note that cost is not a factor in government hospitals since all cataract surgeries are free.**Conclusions:** Increasing public awareness of complications due to delay in cataract surgery, regular eye examination and increasing accessibility will provide a solution to the delayed cataract surgery uptake.**Keywords:** Other eye, Cataract surgery, Barriers, Blindness, Awareness.

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**Introduction and background**

A cataract is a leading cause of blindness in the world with the most common cause being age-related. Cataract surgery is the only solution for restoration of vision loss due to cataract. Multiple barriers surround cataract surgery in every country, but in developing countries particularly in India, lack of education, adherence to traditional health care approaches, lack of family support, inaccessibility of medical services due to poor transportation, Fear of surgery, Fear of poor surgical outcome and Socioeconomic constraints make challenges even greater [1]. Stakeholders involved in eye care in developing countries have invested great amount of money to improve availability and outcome of services [2]. Yet fear as a barrier in accessing cataract surgery remains a challenge. This can be broken down as fear of poor surgical outcome, the operation itself and “the unknown” [3]. In addition, a large proportion of people with cataract blindness do not avail themselves of eye care services since they do not perceive their ocular condition to be serious. The challenges of healthcare in rural and tribal areas include socioeconomic constraints, inequitable services, and lack of access to personal funds and inaccessibility of medical services due to poor transportation. Equally lacking is information regarding appropriate ways in which to improve the

rate of up take. [4] Even when tangible barriers cited as grounds for declining a necessary operation are removed, some patients still decline surgery [5]. We hope that the results of our study will contribute to the understanding of the complex mechanisms of accepting surgery.

**Aims and objectives**

To assess the reasons behind unwillingness for cataract surgery in the other eye in patients with one eye previously operated.

**Materials and Methods**

This was a prospective cross-sectional questionnaire based – single centre study. 200 patients with cataract in one eye and pseudophakia in other eye attending the Ophthalmology OPD were enrolled for the study.

**Inclusion Criteria:**

- Age 55≥ years of any gender.
- One eye pseudophakia and other eye with significant cataract

**Exclusion Criteria:**

- One eyed patient,

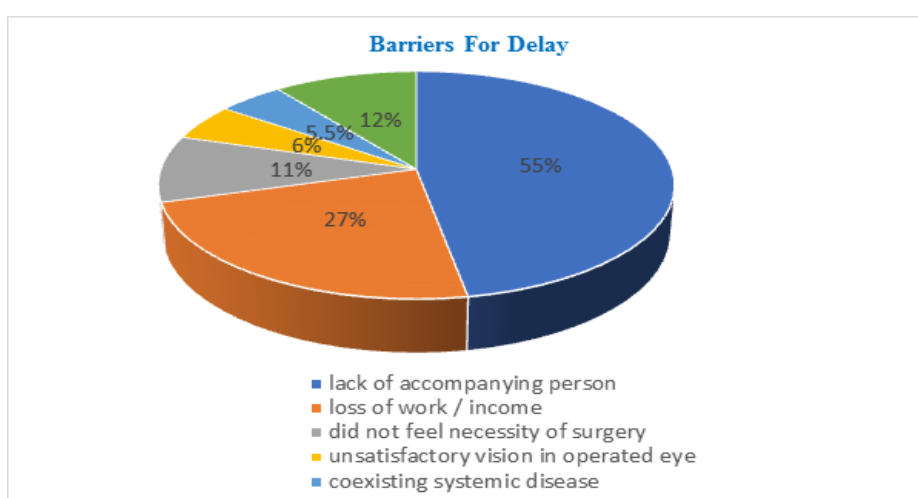
- History of intraocular or refractive surgery other than cataract extraction,
- Media opacity other than incipient cataract,
- Bilateral cataract,
- Bilateral pseudophakia
- Pre-existing posterior segment disorder
- Mental disorder/unwillingness for study

After obtaining the informed consent from every patient who were satisfying inclusion criteria was included. Initial ophthalmic examination was done and patients were counselled for cataract surgery in the other eye. They were given a pre-designed pre-tested questionnaire in their own language for

answering. All the answers from individual patient were evaluated and statistically analysed. Statistical analyses were performed using SPSS Statistics version 20 software (IBM Corp., Armonk, NY, USA).

**Results**

Among the 200 patients selected in our study 140 (70%) were male and 60 (30%) were female. They were 55 years and above. Among them,80 (40%) patients had no any formal education ,70 (35%) had attended primary school and 50 (25%) patients had higher level education. Sixty-one (30.5%) patients were unemployed, 109 (54.5%) patients were associated with a vocation while 30 (15%) patients were retired.



**Figure 1: Shows different barriers for delaying other eye cataract surgery**

The most common reason for delay in cataract surgery in the other eye were lack of an accompanying person. One hundred and ten patients (55%) responded about their inability to attend eye surgery 2<sup>nd</sup> time due to this cause. Fifty-four patients (27%) responded that they feared loss of income or work due to a perceived long rehabilitation period following cataract surgery. Twenty-two (11%) felt that as their eyesight had improved after the first operation and they could perform all their normal activities well and did not require a second surgery. Twelve patients (6%) had unsatisfactory improvement in vision following the first surgery and was

dissatisfied. In some cases, in eleven (5.5%) older persons, systemic diseases like renal failure, severe bronchial asthma, CVA, malignant hypertension and also diabetic and hypertensive eye diseases were so severe that the operation of the second eye became very difficult. 24 patients (12%) felt that getting operated during winter months is more convenient due to restrictions of bathing following cataract surgery and also due to the lack of local festivals during that time.

Distribution of different barriers according to age and gender

**Table 1: Shows different barriers according to age and gender**

Age	Male			Female		
	55-64 years	65-74 years	≥75 years	55-64 years	65-74 years	≥75 years
Lack of accompanying person	18	41	20	7	15	9
Fear of loss of work / income	21	22	9	8	3	2
Not feel necessity of surgery	4	11	18	1	2	4
Unsatisfactory vision after surgery	1	4	4	1	1	1
Coexisting systemic disease	1	3	4	5	1	2
Winter was appropriate	2	10	4	4	3	1

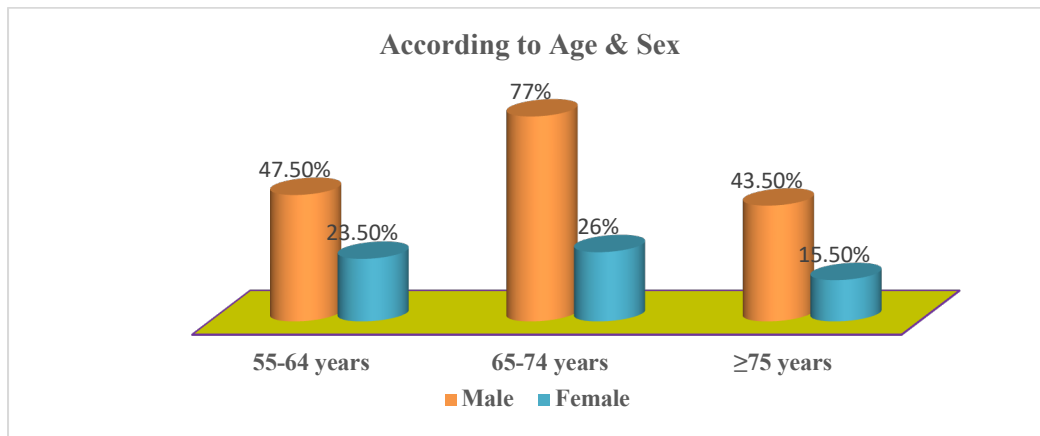


Figure 2: Delaying noted more in younger & Female

Younger than 65 years compared with 65-74 years are more likely to undergo second eye cataract surgery and delaying is more in male than female due to fear of loss of work / income.

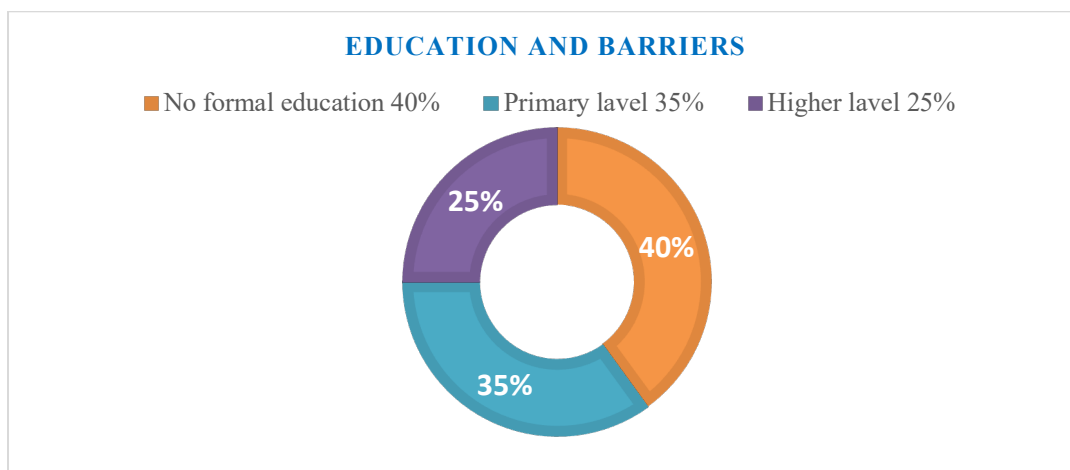


Figure 3: Relation between education and barriers

More common delaying noted in non-formal educated people (40%) due to lack of information, different communication barriers, children are working outside from early age and sick grant children staying their house. they belief that winter is the best time for cataract surgery. In higher educated people facing different kind of barriers . They have small family size, death/separation of spouse and also their children settled abroad.

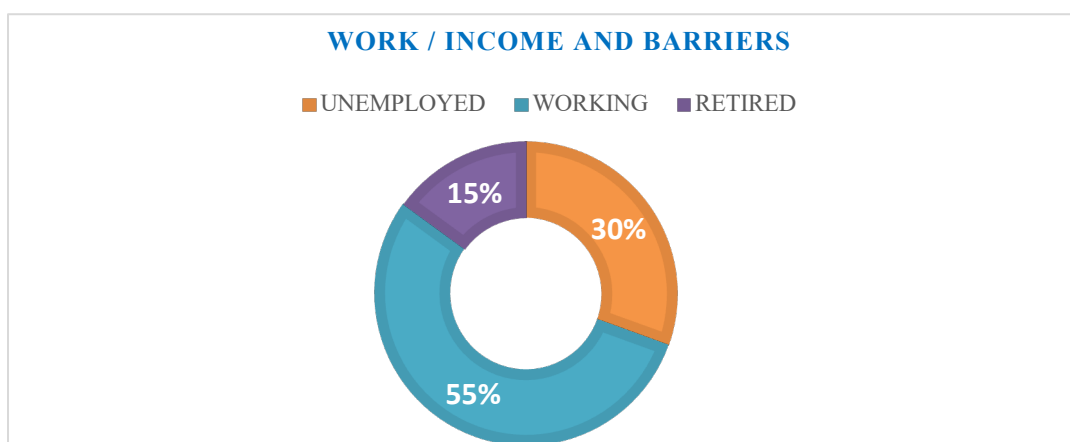


Figure 4: Shows income and barriers

Fifty-five percent of working people delaying cataract surgery due to fear of loss of work / income for long duration staying in home. Unemployed people unable to operate, their dependable children and spouse busy with work and also staying outside from home. Retired persons are more reluctant and pseudo satisfied avoid the surgery.

### Discussion

The different causes were found for barriers of cataract surgery in other eye in our study which were documented and compared with findings from previous studies performed by different researchers.

Castells X et al. [6] conducted an observational, longitudinal study to analyse the clinical and sociodemographic characteristics associated with second eye cataract surgery. Patients undergone second eye cataract surgery. Of the 242 patients studied, 125 (51.7%) underwent second eye surgery after 2-year observation period. Patients younger than 65 years compared with patients aged 65–74 were more likely to undergo second eye cataract surgery. Younger ages were strongly associated with both eyes cataract surgery like in our study.

In our study main and primary reason for delay in cataract surgery was lack of accompanying person, social supports from their family and also, they need permission from spouse and in absence of spouse from elder children who was not present home at the time. They had dependent sick grandchildren. Briesen S et al. [5] found the same result due to lack of family supports elderly patients rejecting surgery.

Also, we found that causes of delaying cataract surgery was observed more in male than female. [7,8]

Fear of loss of work / income more in male than female. Fear about the loss of work due to long duration absence after surgery that was another cause for delay. This study was same as Chibuga [9] et al. study.

Lack of knowledge about cataract and concerns about the quality of local services appear to be the principal barriers to cataract surgery in rural China. [10]

A study in Brazil showed that the barriers to cataract surgery were older age, greater distance to the hospital, municipalities with fewer inhabitants and fewer ophthalmic services. [11]

Also, other study in Sri Lanka showed that fear of surgery, no desire to improve vision and lack of awareness were the most frequently reported barriers. [12]

### Limitation

The questionnaire-based interview was taken only one time. Many a times, the answers were given by family members.

### Conclusions

Lack of accompanying person, fear of surgery complications, far distance from eye health institution, waiting until cataract becomes mature, not knowing where to get the service, fear about loss of income, preferred doctors' appointment, lack of faith, lack of transportation, knowing someone with unsuccessful surgery, can see well with better eye and lack of cataract awareness were the major barriers identified in our study.

Increasing public awareness of complications due to delay in cataract surgery, regular counselling for cataract surgery and counselling about the lens induced glaucoma like phacomorphic glaucoma, phacolytic glaucoma. Now a days cataract surgery is day care surgery so no loss of work and income, Break the social myth not only the winter, it is done in all the season. Regular eye examination and increasing accessibility will provide a solution to the delayed cataract surgery uptake.

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