

## Evaluation of Awareness and Risks for Cataract: An Observational Study

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### ABSTRACT

**Background:** In the developing world, cataract remains the commonest cause of blindness. This present study was undertaken to evaluate knowledge about cataract among patients reporting to the department so that masses can be made aware of risk factors and later complications can be prevented.

**Materials and Methods:** The present cross-sectional survey was done over a period of 1 year enrolling 100 subjects reporting to the Department of Ophthalmology, Sri Muthukumaran Medical College Hospital and Research Institute, Chikkarayapuram, Chennai, India. A verbal consent was obtained from all the subjects. The questionnaire assessed their knowledge, risk factors and management options available for cataract.

**Results:** In the present study, there were 65 % participants who thought that lens opacities lead to cataract. Blurred vision was the most commonly presented symptom. Pain was as per by 41% of study participants. According to 76% participants cataract can result in blindness if not treated. Regarding knowledge about risk factors, trauma was reported by 46% participants, age by 82%, diabetes by 31%, smoking by 32%, hereditary by 29% and ultraviolet rays by 54% individuals.

**Conclusion:** Cataract is one of the most common prevalent ocular conditions. Combination of two or more risk factors leads to the development of cataract amongst an individual. It is important to educate the masses about cataract and make them aware about the management options available and complications if left untreated.

**KEYWORDS:** Blindness; Cataract; Eyes; Ocular.

### INTRODUCTION

Cataract surgery is the commonest single surgical procedure carried out in the developed world. In the developing world, cataract remains the commonest cause of blindness.<sup>1</sup> Several risk factors have been identified in addition to increasing age, genetic composition, exposure to ultraviolet light, and diabetes.<sup>2,3</sup> Combination of two or more risk factors leads to the development of cataract amongst an individual. In developing countries cataract surgery is the most frequently performed ophthalmic procedure.<sup>4</sup> With regard to increasing population and advancing age the burden of cataract is increasing on the societies as it occurs at an earlier age.<sup>5</sup> Even if cataract surgeries are frequently performed and are an effective cure, studies to establish the causative factors and pathophysiology to delay or avert the progress of cataract is a prime challenge in the 21st century.<sup>6</sup>

This present study was undertaken to evaluate knowledge about cataract among patients reporting to the department so that masses can be made aware of risk factors and later complications can be prevented.

### MATERIALS AND METHODS

The present cross-sectional survey was done for a period of 1 year among 100 participants who reported to the Department of Ophthalmology, Sri Muthukumaran Medical College Hospital and Research Institute, Chikkarayapuram, Chennai, India. A verbal consent was obtained from all the subjects. All the subjects were made to fill a structured proforma in their vernacular language. The questionnaire was based on the knowledge, attitude and practice guidelines provided by the WHO. The subjects were evaluated of their knowledge about the risk factors associated with

cataract. The demographic details, knowledge about cataract and its presenting symptoms were noted in a proforma. All the subjects were provided awareness about cataract, and they were also explained about the related risk factors. All the data was expressed as percentage and arranged in a tabulated form and analyzed using SPSS software.

## RESULTS

The present study enrolled 100 subjects with the mean age of  $46.56 \pm 1.25$  years. There were 54% males and 46% females in the study. Majority of the subjects i.e., 56% were aged more than 50 years. Regarding condition of lens, 74% subjects had normal lens, 13% had cataract

and 12% had pseudophakes. Cataract was seen amongst 13% subjects. Regarding employment status, 48% study participants were unemployed whereas 52% were employed. Table 2 shows the knowledge of cataract and comprehension of risk factors about cataract amongst the subjects. There were 65% participants who thought that lens opacities lead to cataract. Blurred vision was the most commonly presented symptom. Pain was as per by 41% of study participants. According to 76% participants cataract can result in blindness if not treated. Regarding knowledge about risk factors, trauma was reported by 46% participants, age by 82%, diabetes by 31%, smoking by 32%, hereditary by 29% and ultraviolet rays by 54% individuals.

**Table 1: Demographic characteristics of the study**

Demographics	Frequency (%)	
Sex	Male	54%
	Female	46%
Age	21-30	5%
	31-40	11%
	41-50	28%
	>50	56%
	Condition of lens	Normal
	Cataract	13%
	Pseudophakes	12%
Employment status	Employed	48%
	unemployed	52%

**Table 2: Comprehension about cataract and its risk factors as reported by study participants**

Knowledge	Frequency	
What happens in cataract	Lens become opaque	65%
	Increase in intraocular pressure	63%
	Any new growth in eye	26%
Symptoms	Blurred vision	57%
	Pain	41%
	Itching	16%
Treatment	Surgical	88(44%)
	Non-surgical	112(56%)
Blindness can occur if not treated	Yes	79%
	No	21%
Associated risk factors		
Trauma	Yes	46
	No	54
Age	Yes	82
	No	18
Diabetes	Yes	31
	No	69
Smoking	Yes	32
	No	68
Hereditary	Yes	29
	No	71
UV exposure	Yes	54
	No	46

## DISCUSSION

Cataract is one of the commonest causes of blindness around the world, and most of the cataracts are related to age.<sup>7</sup> If cataract is left unmanaged and untreated, it can lead to blindness.<sup>8</sup>

Studies have shown that with the cataract services are underutilized. One of the prime reasons reported for underutilization of cataract surgical services include the lack of knowledge and awareness about cataract and the surgical management options.<sup>9</sup> The accepted treatment for cataract management is surgical removal of the opacified lens along with implantation of the artificial lens.<sup>10-12</sup>

In the present study, there were 65 % participants who thought that lens opacities lead to cataract. Blurred vision was the most commonly presented symptom. Pain was as per by 41% of study participants. According to 76% participants cataract can result in blindness if not treated.

Regarding knowledge about risk factors, trauma was reported by 46% participants, age by 82%, diabetes by 31%, smoking by 32%, hereditary by 29% and ultraviolet rays by 54% individuals.

Similarly, in a study carried Gyasi ME et al,<sup>8</sup> average age of the respondents was 67.6 years with equal proportions of males and females (0.9:1). Twelve and fifteen percent of respondents respectively cited fear and lack of escort as barriers to service up-take while 8% and 9% pointed to sociocultural beliefs and the fact that they were able to cope satisfactorily with their disability. Only 1.5% of respondents gave lack of awareness as a barrier with none citing geographical barrier as a problem.

Cost of surgery, was significant barrier with 91% of respondents attesting to it. Klein BE et al<sup>13</sup> examined the relationships of cigarette smoking, alcohol, and caffeine intakes to incidence of age-related cataracts five years and reported that cigarette smoking and alcohol consumption were associated with modestly increased risks of incident nuclear cataract over a five-year interval.

## CONCLUSION

Cataract is one of the most common prevalent ocular conditions. Combination of two or more risk factors leads to the development of cataract amongst an individual. It is important to educate the masses about cataract and make them aware about the management options available and complications if left untreated.

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