

## Cataract patient profiling in a tertiary hospital

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### Abstract

Cataract accounts for 41.8% blindness globally and 81% of blindness in India. By 2020, the elderly population in India is expected to double further increasing the number of blind people.

Purpose: To analyze the profile of patients presenting for cataract surgery.

**Materials and Methods:** A hospital based prospective observational studies was conducted on 500 patients presenting for cataract surgery. Socio-demographic and clinical data were noted.

**Results:** Out of 500 patients majority of them were 50-60 years of age (57.4%) among which most of them were females (63.6%). Many of them belong to rural background (78.2%). Major occupation was agriculture (44.8%). Most of the patients (76%) had a visual acuity less than 3/60 in operating eye. Pterygium (7.8%) and ARMD (8%) constituted major co existing ocular morbidities while hypertension (22.8%) and diabetes (12.2%) were common associated systemic disorders. SICS with PCIOL implantation was major form of surgery (84.2%).

**Conclusion:** This type of data collection reporting provides new material that can be used for targeting major cause of blindness in developing countries by improvement of cataract surgery services.

**Keywords:** Cataract, Patients.

### Introduction

Cataract accounts for 41.8% of blindness globally and 81% of blindness in India.<sup>1,2</sup> By 2020, the elderly population in India expected to double further increasing the number of blind people.<sup>3</sup>

Blindness due to cataract presents an enormous problem in India not only in terms of human morbidity but also in terms of economic loss and social burden. A broad patients profiling helps Eye service providers and their public health colleagues within the department of Health authorities in a better way.

### Materials and Methods

This is a tertiary hospital based prospective observational study conducted on 500 patients presenting for cataract surgery to ophthalmology OPD, SVS Medical College and Hospital, Mahbubnagar, Telangana during Jan 2014 to Dec 2014. Patients with senile cataract aged 50 years and above were included. Patients with cataract aged below 50years, traumatic cataract and complicated cataract were excluded. Patient profiling includes collection of socio –demographic data such as Age, Sex, Domicile, occupation and Clinical data such as visual acuity with pinhole in operating and fellow eye, co-existing ocular (pterygium, corneal disorders, glaucoma, Diabetic retinopathy and hypertensive retinopathy) and medical disorders (hypertension, diabetes, asthma, COPD and ischemic heart disease). Type of cataract surgery (ECCE, SICS, Phaco with IOL) done was recorded. Routine ocular investigations included lacrimal syringing, IOP, B-scan ultrasound. Systemic investigations included complete blood picture, RBS, BP were done.

Data entered, validated and prepared for analysis in specially designed computer software. The SPSS-13 software was used for data analysis.

### Results

Data of 500 patients aged 50 years and above presenting for cataract surgery were analyzed.

### Socio-Demographic Data

**Table 1:** Age and sex distribution

Age group (years)	Male no. (%)	Female no.(%)	Total no. (%)
50-60yrs	92(18.4%)	195(39%)	287(57.4%)
61-70yrs	78(15.6%)	108(21.6%)	186(37.2%)
Above 70yrs	12(2.4%)	15(3%)	27(5.4%)
Total	182(36.4%)	318(63.6%)	500(100%)

Patients aged 50-60 years constituted the major (57.4%) proportion of study and females (63.6%) constituted majority of study population.

**Table 2:** Urban and rural distribution

Domicile	Male no. (%)	Female no. (%)	Total no. (%)
Urban	37 (7.4%)	72(14.4%)	109(21.8%)
Rural	146(29.2%)	245(49%)	391(78.2%)
Total	183(36.6%)	317(63.4%)	500(100%)

Maximum population was rural (78.2%). Hence, majority of patients occupation was agriculture farming 224(44.8%), daily labourers 123(24.6%). Housewives constituted 83(16.6%) other occupation were 70(14%).

## Clinical Data

**Table 3:** Visual acuity in operating and fellow eye

Visual acuity	Operating eye no. (%)	Fellow eye no. (%)
6/18 or better	0	95(19%)
6/60-6/24	51(10.2%)	110(22%)
<6/60-3/60	69(13.8%)	125(25%)
<3/60	380(76.0%)	170(34%)
Total	500(100%)	500(100%)

Majority of patients (76%) had visual acuity <3/60 in operating eye.

**Table 4:** Co-existing ocular and medical disorders

Ocular disorders	Pterygium	ARMD	Glaucoma	PXF with glaucoma	Corneal disorders	Diabetic retinopathy	Hypersensitive retinopathy	Total
	39	40	17	14	12	3	2	127
Medical disorders	Hypertension	diabetes	COPD	Asthma	IHD	Total		
	114	61	7	5	5	192		

Associated common ocular disorders were pterygium, ARMD and Medical disorders were Hypertension, Diabetes.

**Table 5:** Types of surgery done

Type of Surgery	Number of patients	Percentage (%)
ECCE with PCIOL	21	4.2
SICS with PCIOL	421	84.2
SICS with ACIOL	18	3.6
SICS only	4	0.8
Phaco with PCIOL	36	7.2
<b>Total</b>	<b>500</b>	<b>100</b>

SICS with PCIOL was major (84.2%) mode of surgery

## Discussion

Age related cataract is one of the most common diseases and whose prevalence is expected to rise in the coming years in developing countries.<sup>4,5</sup> To a great extent, the occurrence of this type cataract is determined by ageing and therefore with longer life expectancies, it is bound to increase.<sup>6,7</sup> Cataract extraction surgery is among the most common surgical procedures. In general, it is highly beneficial for patients as has been demonstrated by numerous studies.<sup>8,9</sup>

Blindness due to cataract surgery presents an enormous problem in India not only in terms of human morbidity but also in terms of economic loss and social burden. The WHO survey has shown out of 12 million blind in India, 80.1% of are due to cataract. Cataract is totally treatable with surgery (cataract extraction and IOL implantation).

Aim of our study was to look at the profile of patients presenting for cataract surgery at Ophthalmology department SVS Medical College Hospital, Mahbubnagar. Several previous studies assessed the association of socio-demographic factors with the presence of cataract or with the indications of cataract extractions surgery in these patients.<sup>10-12</sup>

In our study majority of patients aged between 50 to 60 years (57.4%), females (63.6%) and rural background (78.2%) constituted majority of study population. In similar study, conducted by Parul Desai et al, women formed 65% of the study group in all age groups expected for the youngest (50-54yrs).<sup>12</sup>

Most of the patients (76%) has visual acuity <3/60 in the operating eye. Visual acuity in the fellow eye was <3/60 in majority (34%). In Parul Desai et al 54% of patients had visual acuity of 6/12-6/60. Pterygium (7.8%) and ARMD (8%) constituted the major proportion of co-existing ocular disorders. Diabetic retinopathy (0.6%), Hypertensive retinopathy (0.4%) was least observed associated ocular disorders in our study. As compared to this ARMD was (16.9%), Glaucoma (11.2%), Diabetic retinopathy (3.4%) in related studies by Parul Desai et al.<sup>12</sup>

Manual Small incision cataract surgery (SICS) with PCIOL implantation was major (84.2%) mode of surgery in our study as this involved less expertise and more cost effective.<sup>13</sup> In contrast to this, phacoemulsification was used in 77% of cataract operations in related study by Parul Desai et al.

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## Conclusion

This type of data collection and reporting provides new material that can be used for better planning and improvement of cataract surgery services, there by targeting most common cause of treatable blindness in developing countries.

**Conflict of Interest:** None.

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