ISSN: 2455-0507



# INCIDENCE OF CATARACTS IN WARANGAL DISTRICT, TELANGANA STATE: A PROSPECTIVE OBSERVATIONAL STUDY

L. Venkatesh<sup>1</sup>, Ch. Sushma<sup>1</sup>, P. Achyuth<sup>2</sup>, E. Venkateshwarlu<sup>1</sup>, A. Kottai Muthu<sup>3</sup>, B.S. Sharavana bhava <sup>1\*</sup>

<sup>1</sup>Department of Clinical Pharmacy & Pharm.D., MGM Hospital, Vaagdevi College of Pharmacy, Hanamkonda, Warangal, Telangana, India

<sup>2</sup> Department of Clinical Pharmacy & Pharm. D., Vaagdevi Institute of Pharmaceutical Sciences, Bollikunta, Warangal, Telangana, India

<sup>3</sup> Associate Professor, Department of Pharmacy, FEAT, Annamalai University, Annamalai Nagar- 608002, Chidambaram, Tamil Nadu, India.

## **ABSTRACT**

Background: Cataract is the major cause of blindness worldwide, especially in tropical belt, where the densely populated developing countries are located. Survey in different climatic zones in northern India have found cataract prevalence of 4-10% and steadily increasing after the age 30 and with prevalence 13-36% among age of 30 and above. Our aim is to study the incidence of cataracts in Warangal District, Telangana State. Materialand Methods: It is a prospective observational study in which all the patients suffering with cataracts were included as subjects. Results: Among the total 83,827 cases in outpatient department females are found to be 41,167 (0.49%) and males found to be 42,660 (0.50%) of 6816 inpatients admitted, the female population was found to be 3285 (0.48%) and male population was found to be 3531 (0.51%). The total number of cataract operations done including TOL were 5429 and females found to be 2653 (0.48%) and males 2726 (0.50%). The total corrected refractive errors were 31,427 and females were found to be17,538 (0.55%) and males were 13,889 (0.44%). Conclusion: In conclusion, we have documented the incidence of cataracts in which males more affected than females.

**Keywords:** Cataracts, Blindness, Incidence, Ophthalmology.

#### INTRODUCTION

Cataract is defined as accumulation of proteins in the lens of eve where the cloudiness can be observed and the symptoms can be seen are mainly watery eyes and blurred vision. Cataract is a major cause of blindness worldwide, especially in the tropical belt, where the most of the densely populated developing countries are located. In India 60% of all blindness may be due to cataract; Various surveys in India show that nearly 7% of the population suffers from cataracts and nearly 1.5% of the population is blind due to cataract (1,2). Accordingly, blindness control programmes in India have focused primarily on cataract. Although such programmes have improved the coverage of cataract surgerythey have not always resulted in good postoperative vision outcomes. Surveys in different climatic zones in northern India have found cataract prevalence of 4-10%, with senile cataract appearing and steadily increasing after age 30 and with prevalence 13 - 36% among persons aged 30 and older(3,4). The aim is to study

Address for correspondence:

B.S.Sharvana bhava,

Department of Clinical Pharmacy & Pharm.D., Vaagdevi College of Pharmacy, Warangal, Telangana-506007

the incidence of Cataracts in Regional Eye Hospital at Warangal district in Telangana state.

## MATERIAL AND METHODS

It is a prospective observational study conducted in patients from "Regional Eye Hospital" located at Warangal. Patients were explained about the study & informed consent forms were seeked by explaining them in their local language. Institutional Human Ethical Committee Endorsementwas obtained after submission of protocol and IHEC No. is MGM/VCOP/PHARMD/V/12/2017.

#### **Inclusion criteria:**

All the cataract patients of age above 40 years (Males and Females).

## **Exclusion criteria:**

Trauma to eye and other complications, Pediatric patients, Pregnancy and Lactating mothers were excluded from this research work (5-9).

**Study type:** A Prospective Observational Study conducted in the Regional Eye Hospital, Warangal, Telangana State.

**Statistical analysis:** We had calculated the Incidence by using formula

Incidence = Number of new cases at a particular area to the total number of cases at that particular area.

Our data was entered into MS Excel Sheet and data was analyzed according to the protocol.

# **RESULTS AND DISCUSSION:**

A total of 83,827 patients were enrolled in this

observational study who consulted the physician of Ophthalmology department, Regional Eye Hospital, Warangal from May 2017 to April 2018.

# **Study subjects:**

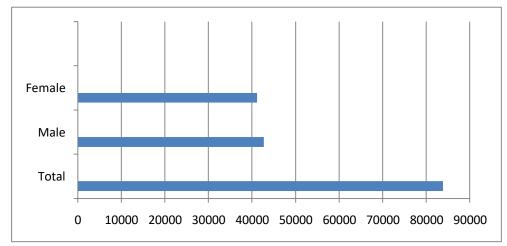


Figure:1 Gender distribution of number of cases in outpatient department.

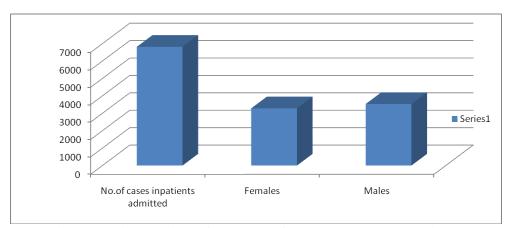


Figure:2 Distribution of number of cases inpatients admitted.

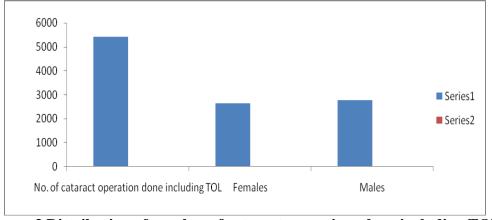


Figure:3 Distribution of number of cataract operations done including TOL.

Sharvana bhava.,: Incidence of cataracts in warangal district, telangana state

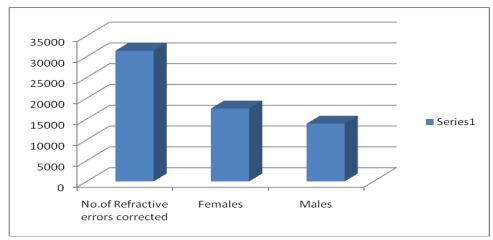


Figure 4: Distribution of number of refractive errors corrected.

In our study, the incidence of cataract was slightely higher in Males than in Females. Our study reveals that the epidemiological data is increasing year by year which is comparable with the study conducted by T Wong, S-C Loon and S-Msaw which had documented that there is increasing order of epidemiological data on the major age related eye diseases in the population(10,11).

### **CONCLUSION**

In conclusion, we have documented the incidence of cataracts is higher in males than in

females. Early detecting of cataract can be done by signs and symptoms of the patient and their early consultation to the Ophthalmologist.

From our study, the males are more affected with cataract than females. The present investigation might help the clinicians to reach the good treatment goals. And also provides a point of view to the physicians that why this cataractis increasing its incidence rate year by year. By this view, awareness about cataract for the physicians can help them to make still more investigations on treatment of cataracts.

# Acknowledgement

Authors are thankful to the Principal, Dr. C. Srinivas Reddy & Secretary, Dr. Ch. Devender Reddy for giving us opportunity to work and providing necessary facilities to carry out this Research work.

# **Competing Interests**

The Authors declare that they have no competing interests.

#### **Authors Contribution**

L. Venkatesh and Ch. Sushma may be considered as first authors and worked in the Hospital in collection of data, Counselling the Cataract patients, Achyuth P designed the documents required for the work, E. Venkateshwarlu in selection of Patients, making them understand about the research work and dragged the results by applying suitable statistical designs, Kottai Muthu A and Sharavana bhava B.S. discussed and conceived the idea of doing this research work and prepared the Project proposal.

### **REFERENCES**

- [1] Dhir SP, Gupta SB, Agarwal LP. "Eye diseases in rural India". Orient Arch Ophthalmology, 1969; 7: 85-92.
- [2] Jain IS. "Blindness and Ocular Morbidity in Two Rural Blocks of Punjab and Haryana. Chandighar": Post
- Graduate Institute of Medical Education and Research, 1970.
- [3] Chatterjee A. Cataract in Punjab. In: "The Human Lens in Relation to Cataract". Ciba Foundation Symposium 19. Amsterdam: Associated Scientific Publishers, 1973:265-79.

- [4] Specter A. Report on National Eye Institute cataract workshop, Invest Ophthalmol Visual Sci 1974; 13:325-32.
- [5] Venkataswamy G. "Massive eye relief project in India". Am J Ophthalmol 1975; 79:135-40.
- [6] Mehrotra SK, Maheshwari BB. "Prevalence of ocular lesions in a rural community".Indian J Ophthalmol 1976; 23: 17-20.
- [7] Liu HS, Mc Gannon WJ, TolentinoFl, Schepens CL. "Massive cataract relief in eye camps". Ann Ophthalmol 1977; 9: 503-8.
- [8] Mohan M. National survey of blindness—India. NPCB-WHO Report.

- New Delhi: Ministry of Health and Family Welfare, Government of India,1989.
- [9] Jose R, Bachani D. World Bank-assisted cataract blindness control project. Indian J Ophthalmol1995;43:35–43.
- [10] Limburg H, Vasavada A, Muzumdar G, et al. "Rapid assessment of cataract blindness in an urban district of Gujarat". Indian J Ophthalmol1999;47:135–41.
- [11] Murthy GVS, Gupta S, Ellwein LB, et al. A population-based eye surveyof older adults in a rural district of Rajasthan: "Central vision impairment, blindness, and cataract surgery". Ophthalmology 2001;108:679–85.