



INCIDENCE OF CATARACT PATIENTS REPORTING TO COLLEGE OF MEDICINE, JAGDALPUR, CHHATTISGARH: A RETROSPECTIVE STUDY OF 5 YEARS.

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ABSTRACT

BACKGROUND: Cataract is an aftermath of senescence. It is defined as a medical condition in which the lens of the eye becomes progressively opaque, resulting in blurred vision. 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. Treatment modalities include Modern cataract surgery, including clear cornea approach, lens aspiration with posterior capsulotomy, anterior vascotomy and IOL implantation. Objective was to study the Incidence of Cataract patients reporting to College of Medicine, Jagdalpur, Chhattisgarh.

METHODS: This is a retrospective study involving 800 patients over a period of three years. The demographic data of the patients was retrieved from medical records department of the institution. Type of cataract was also included in the study as: a) Nuclear, b) Cortical and c) Sub-capsular. The Permission from Institutional Ethics Committee was obtained. From each and every patient included in the study, initially informed individual consent was taken.

RESULTS: Out of 800 patients, 504 were males and 296 were females. In both males and females predominant group with cataract were 41 – 50 years old.

Cortical type of cataract was the predominant type. There was no significant difference in the distribution of types of cataract. Among males, nuclear type was the predominant type whereas among the females, cortical type was the predominant type.

CONCLUSION: A total of 8781 files were screened for a period of three years, 800 patients had cataract. In the present study the majority of cataract patients were in the elderly age group.

KEYWORDS : Incidence, cataract, blindness.

INTRODUCTION:

Cataract is an aftermath of senescence. It is defined as a medical condition in which the lens of the eye becomes progressively opaque, resulting in blurred vision. 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. The WHO/NPCB (National Programme for Control of Blindness) survey has shown that there is a backlog of over 22 million blind eyes (12 million blind people) in India, and 80.1% of these are blind due to cataract(1).

There are three main types of Cataracts: nuclear; cortical; and sub capsular. Nuclear cataracts form deep in the central zone of the lens and are usually associated with aging. Cortical cataracts occur in the lens cortex, the part of the lens that surrounds the central nucleus and have white, wedge-like opacities that start in the periphery of the lens and work their way to the center, resembling spokes. Sub capsular cataract occurs at the back of the lens. People with diabetes or those taking high doses of steroid medications have a greater risk of developing sub capsular cataracts (2).

Identifying the risk factors responsible for cataract formation is a difficult and complicated problem because a realistic causal model in cataract formation would not be a simple linear sufficient cause paradigm (e.g., one exposure-one cataract type) (3).

Risk factors for development of cataract include: genetic factors, age related, gender related, malnutrition, smoking, hypertension, oxidative free radicals (4). Treatment modalities include Modern cataract surgery, including clear cornea approach, lens aspiration with posterior capsulotomy, anterior vascotomy and IOL implantation (5).

METHODS:

This is a retrospective study involving 800 patients over a period of three years. The demographic data of the patients was retrieved from medical records department of the institution.

INCLUSION CRITERIA INCLUDED:

1. Patients in the age group of 30 years to 60 years
2. Patients without other co-morbid conditions
3. Blind patients
4. Patients who have not undergone previous eye surgeries

Patients were categorized into three categories based on the age group:

Age group 1: 30 – 40 years, Age Group 2: 41 – 50 years and Age group 3: 51 – 60 years.

Data was also entered according to the gender Type of cataract was also included in the study as: a) Nuclear, b) Cortical and c) Sub-capsular.

The data collected was entered into excel spread sheet and results were displayed as percentages in graphs

RESULTS:

A total of 8781 files were screened for a period of three years, 800 patients had cataract

Table 1: Distribution of Cataract patients according to Age group & Gender

Age group	30 - 40	41 - 50	51 - 60	
Male	187	224	93	504
Female	74	138	84	296
Total	261	362	177	800

Table 1 shows Distribution of Cataract patients according to Age group & Gender. Out of 800 patients, 504 were males and 296 were females.

In 30 – 40 age groups, total of 261 cataract patients were present, out of which 187 were males & 74 were females.

In 41 - 50 age group, total of 362 patients, out of which males 224 & females 138.

In 51 – 60 age group, total of 177 patients, out of which 93 males & 84 females.

In both males and females predominant group with cataract were 41 – 50 years old.

Table 2: Distribution of patients according to the type of cataract

	Sub - Capsular	Nuclear	Cortical	Total
Male	130	201	173	504
Female	74	96	126	296
Total	204	297	299	800

Table 2 shows: Distribution of patients according to the type of cataract.

Type of cataract – Sub capsular, Nuclear, Cortical.

In Sub –cortical type of cataract out of 204 patients, 130 were males & 74 were females.

In Nuclear type of cataract out of 297 patients, 201 were males & 96 were females.

In Cortical type of cataract out of 299 patients, 173 were males & 126 were females.

Cortical type of cataract was the predominant type.

There was no significant difference in the distribution of types of cataract.

Among males, nuclear type was the predominant type whereas among the females, cortical type was the predominant type.

DISCUSSION:

Cataract develops as opacity within the lens thereby reducing the light causing poor or blurred vision.

Etiology of cataract is widespread ranging from genetic factors to habits such as smoking.

Age related cataract is the most prevalent type in adults, with the onset between 40 to 50 years of age. While in children hereditary, metabolic causes are most common. (6)

According to Shahsuryan M, cataract develops due to significant changes in the highly ordered crystalline proteins assembly and solubility of the lens crystalline proteins. (7)

The concentration of cholesterol in the lens, specifically in the lens membrane, is extraordinary high; and is required for lens epithelial cells normal functioning.

Any decreased amount of cholesterol is harmful for the lens (8, 9, and 10)

CONCLUSION:

After the study in detail, the following conclusions are confirmed.

Out of 800 patients, 504 were males and 296 were females, in both males and females predominant group with cataract were 41 – 50 years old.

According to the type of cataract, cortical type of cataract was the predominant type.

Among males, nuclear type was the predominant type whereas among the females, cortical type was the predominant type.

Similar to studies conducted elsewhere, in the present study the majority of cataract patients were in the elderly age group.

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