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CATARACT AND ITS COMPLICATIONS: THE IMPORTANCE OF SURGICAL TREATMENT

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Abstract

Cataract is one of the leading causes of visual impairment and blindness worldwide. It is characterized by progressive opacification of the crystalline lens, resulting in decreased visual acuity and impaired quality of life. If left untreated, cataracts may lead to serious complications including secondary glaucoma, lens-induced inflammation, and blindness. Although conservative measures may temporarily improve symptoms, surgery remains the only definitive treatment. Modern cataract surgery, especially phacoemulsification with intraocular lens implantation, has become a highly effective and safe procedure. This review discusses the etiology, complications, and emphasizes the significance of operative treatment in cataract management.

Keywords

Cataract, blindness, phacoemulsification, intraocular lens, complications, cataract surgery.

Introduction

Cataract is defined as partial or complete opacity of the lens, causing obstruction of light transmission to the retina. It may be age-related, congenital, traumatic, metabolic, or secondary to systemic disease. According to World Health Organization, cataract remains the major cause of reversible blindness globally. With increasing life expectancy, the burden of cataract continues to rise.

Etiology of Cataract

The major causes of cataract include:

Age-related cataract

Senile cataract is the most common form and develops due to degenerative changes in lens proteins.

Congenital cataract

Occurs due to genetic abnormalities, intrauterine infections, or metabolic disorders.

Traumatic cataract

Develops after mechanical, chemical, or radiation injury.

Metabolic cataract

May be associated with diseases such as Diabetes Mellitus, galactosemia, and hypocalcemia.

Secondary cataract

May occur due to prolonged corticosteroid use, uveitis, or glaucoma.

Clinical Manifestations

Common symptoms include:

Blurred vision,

Decreased visual acuity,

Glare sensitivity,

Difficulty seeing at night,

Faded color perception,

Diplopia in one eye,

As cataract progresses, vision may become severely impaired.

Complications of Cataract

Untreated cataract may result in serious complications:

1. Secondary Glaucoma

Advanced cataracts may increase intraocular pressure and cause lens-induced glaucoma.

2. Phacolytic Uveitis

Leakage of lens proteins can provoke inflammatory responses inside the eye.

3. Lens Subluxation or Dislocation

May occur in hypermature cataracts.

4. Irreversible Blindness

Delayed treatment may cause permanent visual loss.

5. Increased Risk of Falls and Disability

Especially in elderly patients, visual impairment contributes to trauma and reduced independence.

Importance of Surgical Treatment

Cataract Surgery as Definitive Therapy

Surgery is the only effective treatment for cataract. Medical therapy cannot reverse lens opacity.

Phacoemulsification

Phacoemulsification is the gold standard surgical method. It involves:

Ultrasonic fragmentation of the opaque lens,

Removal of lens material,

Implantation of an intraocular lens (IOL),

Advantages include:

Small incision,

Rapid recovery,

Minimal complications,

High success rate,

Extracapsular Cataract Extraction (ECCE),

Used in selected advanced cases when phacoemulsification is not feasible.

Significance of Operative Management

Operative treatment is important because it:

Restores visual function,

Prevents complications such as glaucoma and uveitis,

Improves quality of life,

Reduces disability and dependence,

Prevents avoidable blindness,

Modern cataract surgery has success rates above 95% in uncomplicated cases.

Postoperative Complications

Though generally safe, surgery may rarely cause:

Posterior capsule opacification,

Endophthalmitis,

Cystoid macular edema,

Secondary glaucoma,

Retinal detachment,

Early diagnosis and management reduce these risks.

Discussion

The role of operative treatment in cataract management is crucial because surgery not only restores sight but prevents severe ocular complications. Advances in microsurgical

techniques and intraocular lens technology have significantly improved outcomes. Early surgical intervention provides better prognosis compared with delayed treatment.

Conclusion

Cataract is a major but treatable cause of blindness. Its complications can be severe if diagnosis and treatment are delayed. Surgical management, particularly phacoemulsification with intraocular lens implantation, remains the most effective method for restoring vision and preventing complications. Therefore, operative treatment has central importance in modern cataract care.

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