

CASE REPORT – MANAGEMENT OF A CASE OF POSTERIOR POLAR CATARACT (PPC)

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INTRODUCTION

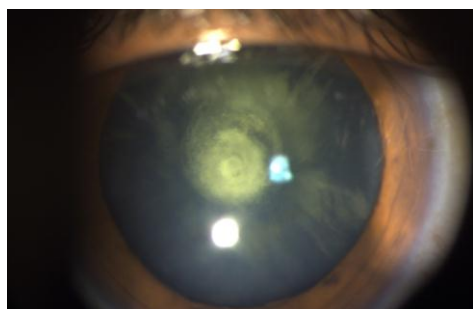
Posterior polar cataract (PPC) is a form of congenital cataract. It is autosomal dominant in inheritance but can be sporadic. Multiple genes have been implicated in its inheritance patterns. PPC form early in life but may become more clinically significant over time. Though posterior polar cataract is a challenge for cataract surgeons, patience with meticulous attention to the technique ensures a safe surgery and favourable postoperative outcome.

RELEVANT HISTORY

We here discuss a case of 52 year old female who presented with complaint of diminution of vision both eyes (L>R) from 1-2 years. DOV was insidious in onset, painless, progressive and associated with intolerance to light.

OCULAR EXAMINATION

Her best corrected visual acuity (BCVA) in right eye was 6/9 and left eye was 6/12. Intraocular pressure was 16mmHg in both the eyes. On slit lamp examination, oval shaped cataract with ringed appearance was noted. It was classified as PPC type 2 according to Singh's classification. Left eye phacoemulsification with PCIOL implantation was done.

**DISCUSSION**

Posterior polar cataracts (PPC) represent a medically and surgically unique form of cataracts. It is autosomal dominant in inheritance but can be sporadic. Incidence of PPC is approximately 3-5 in 1000 individuals. Positive family history can be found in 40-55% cases. PPC is bilateral in 65-80% cases. There is no sex predilection.

Factors involved in the pathogenesis are persistence of the hyaloid artery, invasion of the lens by mesoblastic tissue or gene mutation (CTTP 1-5, PITX3) and

abnormality in development of the lens fibres that fail to develop normally and form an opacity close to and sometimes adherent to the posterior capsule. It can be classified by Duke Elders and Singh's classification.

Surgical challenge include strong adherence of the opacity to the weak posterior capsule causing 7.5-36% likelihood for a posterior capsular rent (PCR). Preoperative counselling should be done about possibility of a posterior capsule rupture, secondary posterior segment intervention and a delayed visual recovery. Possibility of leaving the patient aphakic and need for ND: YAG capsulotomy for residual plaque should be explained.

Though posterior polar cataract is a challenge for cataract surgeons, patience with meticulous attention to the technique including carefully sized capsule or hexes, avoidance of cortical cleaving hydro dissection, gentle hydro delineation, gentle nucleus handling with low phacoparameters, tackling the central epinuclear plate in the last part of cortical clean up, maintaining a stable chamber during the procedure ensures a safe surgery and favourable postoperative outcome.

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