

ABSTRACT

Risk factors for early posterior capsule opacification after cataract surgery

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Objective: To determine risk factors for early posterior capsule opacification (PCO) following cataract surgery.

Study Design: Case-Control study.

Material and Methods: Patients developing PCO within and after 12 months of cataract extraction were selected as cases (early PCO) and controls (late PCO) respectively. PCO (central/ peripheral) was diagnosed by clinical examination with slit lamp biomicroscope under pupillary dilation. Operation notes were also reviewed from the hospital record. Risk factors including age of patient, surgical procedure, intraocular lens material, anterior capsulotomy/ capsulorhexis, duration since operated and experience of surgeon were observed.

Results: The study population was 146 patients, 73 in each group. There were 84 male and 62 female patients with mean age 59.33years + 15.76 SD. The study revealed significant risk of early PCO in patients who underwent standard ECCE versus Phacoemulsification (p value 0.000), PMMA vs. Acrylic IOLs (p 0.000), and can-opener capsulotomy vs. Continuous curvilinear capsulorhexis (p 0.001). Experience of surgeon was not related with early onset PCO(p 0.184).

Conclusion: Early PCO has multifactor etiology; related to surgical technique and IOL implant. Meticulous surgical technique, performed under more physiological conditions, with minimum compromise of blood aqueous barrier, thorough removal of lens matter, implantation of an acrylic IOL into capsular bag are various factors that may retard the onset of PCO. These factors are interdependent and cannot slow down the process of PCO formation independently. .Al-Shifa Journal of Ophthalmology 2010; 6(1): 22-29 © Al-Shifa Trust Eye Hospital, Rawalpindi, Pakistan.