

Prevalence of posterior polar cataract and its complication in Hospital Selayang: A 9-year-study

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ABSTRACT

Introduction: Posterior polar cataracts (PPCs) are an uncommon form of cataract with specific morphological features, characterized by circular onion ring or rosette-shaped lens opacities that involve the posterior capsule. Moreover, PPCs are notably thin and fragile, which increases the risk of posterior capsule rupture (PCR). PPC prevalence has been reported as 0.3% to 2%. The delicate nature of the thin posterior capsule demands careful surgical handling. Therefore, no specific surgical approach guarantees an uneventful procedure. Studies have reported intraoperative complication rates of PCR as high as 40%. Additionally, approximately 10.5% of PPC cases experience intraoperative nucleus drop (ND), with a 20-fold higher risk compared to other cataracts. **Objective:** To report the prevalence of polar cataract and intraoperative complications in Hospital Selayang between 2015 to 2023. **Materials and Methods:** Retrospective observational using data extracted from National Eye Database (NED) cataract registry, using keyword "Polar" and "polar cataract" from year 2015 to 2023 in Hospital Selayang. Data analysis was performed using Microsoft Excel. **Results:** Within a 9 years period, only 14 out of 9352 eyes (0.2%) was diagnosed with PPC. Among these cases, 6 eyes experienced PCR (42.8%), and 1 eye (7.1%) required vitreoretinal (VR) intervention due to nucleus drop. Of the 14 eyes, 9 underwent primary intraocular lens implantation (10 with posterior chamber intraocular lenses and 1 with an anterior chamber lens), while 3 eyes remained aphakic. **Conclusion:** Our study revealed a 0.2% incidence of polar cataracts, consistent with other studies. Despite advancements in surgical techniques, PCR remains nearly inevitable in PPC cases, as our findings align with those of other studies. However, with effective intraoperative management and the use of new techniques, the risk of complications such as nucleus drop can be minimized, making it safe to remove PPC without ND.