

## THE VISUAL OUTCOME AND RELATED PARAMETERS IN CATARACT SURGERY WITH HIGH MYOPIA

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**Purpose:** The purposes of this study are to describe the visual outcome of highly myopic eyes undergoing cataract surgery and, to investigate associated risk factors for poor postoperative vision, and to assess postoperative complication frequency among the prevalent myopic Taiwanese population.

**Methods:** High myopia was defined as an axial length of  $\geq 26.0$  mm. Main study outcomes were visual acuity for the initial 6-month postoperative period (including quality and improvement of postoperative vision), and postoperative complications (including subsequent cataract formation and postoperative retinal detachment).

**Results:** Fifty-two highly myopic eyes were enrolled between January 2002 and December 2004. Mean follow-up interval was 33.3 weeks. Thirty-two eyes (61.5%) had good postoperative visual improvement ( $\geq 4$  line Snellen chart). Thirty-seven eyes (71.2%) achieved good postoperative vision (20/40 or better). Fifteen

eyes (28.8%) demonstrated poor postoperative vision. Pre-existing maculopathy was an independent risk factor for failure to achieve good postoperative vision (odds ratio (OR) 6.84, 95% confidence interval (C.I.): 1.12-41.8) and improvement (OR 16.1, 95% C.I.: 2.2-119.9). Diabetic history was considered another independent risk factor for poor postoperative vision (OR 15.6, 95% C.I.: 0.97-267.6). Six eyes (11.5%) developed subsequent cataract requiring Nd:YAG laser capsulotomy. Two eyes (3.8%) developed retinal detachment during follow-up.

**Conclusions:** Most highly myopic eyes achieved good visual improvement and good postoperative visual acuity after cataract surgery. Pre-existing maculopathy was an independent risk factor of postoperative visual improvement and status. It is crucial to examine retinal status prior to cataract surgery to prevent poor vision improvement, poor postoperative vision, or retinal complications.

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