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The incidence and risk factors for dry eye after pediatric strabismus surgery

Lin Chen

Children's Hospital of Chongqing Medical University, China

Aims: To investigate the incidence and risk factors for dry eye after pediatric strabismus surgery.

Methods: Children aged 5 to 12 who underwent strabismus surgery were included in this single-center, prospective, cohort study. The ocular surface assessments were conducted 1 day before and 1 week, 4 weeks and 8 weeks after surgery. The main outcome measures are the incidence of dry eye after strabismus surgery and associated risk factors.

Results: A total of 84 eyes (48 children) that underwent strabismus surgery were included in the study. The mean age at surgery was 7.21 years. The incidence of dry eye was 47.62% at 1 week, 10.71% at 4 weeks, 0% at 8 weeks after surgery. The preoperative tear Break-Up Time (BUT) was lower in the dry eye group than that in the non-dry eye group ($P \leq 0.01$). The univariate analysis showed that preoperative BUT was significantly associated with the incidence of dry eye after pediatric strabismus surgery (Odds Ratio [OR]: 0.647, Confidence Interval [CI]: 0.503~0.833, $P \leq 0.01$).

Conclusions: Dry eye commonly occurs after pediatric strabismus surgery. Tear film instability is more common than deficient aqueous tear production in patients with dry eye after surgery. Children with a low preoperative BUT are more likely to develop dry eye after strabismus surgery.

Biography

Lin Chen is affiliated from Department of Ophthalmology, Children's Hospital of Chongqing Medical University, Ministry of Education Key Laboratory of Child Development and Disorders, China International Science and Technology Cooperation Base of Child Development and Critical Disorders, China.

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