

Femtolaser Assisted Capsulotomies During Cataract Surgery in Children

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Objectives. To report femtosecond laser-assisted anterior and posterior capsulotomies during cataract surgery in children.

Methods. The technique of femtosecond laser-assisted capsulotomy has been performed in 9 children (ages from 3 to 7 years) with congenital cataract: 5 (including 3 patients with swelling cataract) - anterior capsulotomy only, 4 - both anterior and posterior capsulotomies by means of Femto LDV Z8 laser system (Ziemer, Switzerland).

Results. A fluid-filled interface makes it possible to dock the laser to the eye for anterior capsulotomy (4.0-4.5 mm in diameter). The integrated 3-dimensional optical coherence tomography also visualizes the posterior capsule, allowing a centered central posterior capsulotomy (3.0-3.5 mm in diameter) without any complications. The anterior and the posterior capsule disks are removed by aspiration system without capsule tears. All the patients had postoperative period without complications and high visual acuity at the end of the follow-up.

Conclusions. Femtosecond laser-assisted anterior and posterior capsulotomies are effective and safe techniques that can enhance the quality of congenital cataract surgery in children