

Evaluating the speed of visual recovery following thin-flap LASIK with a femtosecond laser.

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Abstract

PURPOSE:

To investigate the speed of visual recovery following myopic thin-flap LASIK with a femtosecond laser.

METHODS:

This pilot study prospectively evaluated 20 eyes from 10 patients who underwent bilateral simultaneous LASIK with the Femto LDV Crystal Line femtosecond laser (Ziemer Ophthalmic Systems AG) used to create a circular flap of 9.0-mm diameter and 110- μ m thickness followed by photoablation with the Allegretto Wave Eye-Q (WaveLight AG) excimer laser. Binocular and monocular uncorrected distance visual acuity (UDVA), monocular contrast sensitivity, and a patient questionnaire were evaluated during the first hours, 1 day, and 1 month postoperatively.

RESULTS:

For monocular UDVA, 100% of eyes were 20/40 at 1 hour and 100% were 20/25 at 4 hours. For binocular UDVA, all patients achieved 20/32 by 30 minutes and 20/20 by 4 hours. Low frequency contrast sensitivity returned to preoperative baseline by 1 hour ($P=.73$), and showed a statistically significant improvement over baseline by 4 hours ($P=.01$). High frequency monocular contrast sensitivity returned to preoperative baseline by 4 hours ($P=.48$), and showed a statistically significant improvement by 1 month ($P=.04$). At 2 and 4 hours, 50% and 100% of patients, respectively, indicated that they would feel comfortable driving.

CONCLUSIONS:

Visual recovery after thin-flap femtosecond LASIK is rapid, occurring within the first few hours after surgery.

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