

# Evaluation of LASIK treatment with the Femto LDV in patients with corneal opacity.

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## Source

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## Abstract

### PURPOSE:

To evaluate the relative effectiveness and safety of LASIK using the Femto LDV (Ziemer Ophthalmic Systems AG) and IntraLase FS 60 (Abbott Medical Optics Inc) femtosecond lasers in patients with corneal opacity.

### METHODS:

Patients with corneal opacity were retrospectively selected between March and July 2009. For this study, 205 eyes with 90- $\mu$ m corneal flaps created using the Femto LDV (LDV group) and 200 eyes with corneal flaps created using the IntraLase FS 60 (Intra-Lase group) were selected. The flap thickness of the IntraLase group was determined by observation with slit-lamp microscopy. Uncorrected distance visual acuity (UDVA), corrected distance visual acuity (CDVA), and manifest refraction spherical equivalent (MRSE) were measured pre- and postoperatively and were statistically evaluated using the Student t test and Mann-Whitney U-test.

### RESULTS:

Regardless of the levels of opacity, eyes in the LDV group experienced uneventful procedures with no complications. Eyes in the IntraLase group had corneal flaps of 100- to 130- $\mu$ m thickness and uneventful procedures; however, gas breakthrough was observed in 27 eyes. Of all eyes, 117 eyes from the LDV group and 109 eyes from the IntraLase group were available for 3-month follow-up. Mean 3-month postoperative UDVA, CDVA, and MRSE for the LDV group were 20/12.5, 20/12.5, and  $0.17\pm 0.32$  diopters (D), respectively, and for the IntraLase group were 20/12.5, 20/12.5, and  $0.11\pm 0.34$  D, respectively. No statistically significant differences were noted in UDVA, CDVA, or MRSE between groups ( $P>.05$  for all).

### CONCLUSIONS:

Laser in situ keratomileusis with the Femto LDV created thin flaps regardless of level of opacity and induced no complications as compared to the IntraLase FS 60, where gas breakthrough was significantly more common.

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