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## COMPARATIVE STUDY USING THE FEMTOSECOND LASER (INTRALASE) VS A MECHANICAL MICROKERATOME (HANSATOME, B&L) IN LASIK: ANALYSIS OF CLINICAL OUTCOMES

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**PURPOSE:** To prospective analyze the safety, accuracy, efficacy, stability, predictability and complications of LASIK with flaps created using femtosecond laser or a mechanical microkeratome.

**SETTING:** Ophthalmology Department, Coimbra University Hospital; Centro Cirúrgico Coimbra, Coimbra, Portugal.

**METHODS:** 200 eyes of 100 patients underwent LASIK treatment for myopia and myopic astigmatism correction. In one eye the flap, of intended thickness 120  $\mu$ , was created with a femtosecond laser (IntraLase) (group I) and in the contralateral eye with a mechanical microkeratome (Hansatome, B&L) with intended thickness of 160  $\mu$  (group II). The Excimer laser used was the 217 Z100 (B&L). Mean spherical equivalent was  $-5.21 \pm 1.8$  D in group I and  $-4.56 \pm 2.1$  D in group II. The main outcomes were: UCVA, BSCVA, residual refractive errors, safety and complications. Minimum follow-up of 3 months.

**RESULTS:** No significant differences were noted in the visual outcomes between groups; a light late visual recovery, a longer surgical time and a need for a longer post-op medication was noted in the intralase group. Mean deviation of flap thickness from target was lower in group I. Comprehensive results will be presented.

**CONCLUSIONS:** The method of flap creation did not affect visual outcomes after LASIK. In spite of minor disadvantages, flap creation with femtosecond laser enables a more controlled method of correction myopia.