

# Ophthalmology Times

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## 'Perfect' flap yields improved refractive outcomes

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**T**he quest for the perfect flap is producing better and better outcomes for refractive surgery patients.

In a randomized, prospective study, Dan Tran, MD, of Long Beach, CA, compared the wavefront changes after LASIK performed with either the Hansatome (Bausch & Lomb) or the IntraLase femtosecond laser. In 18 eyes (9 patients), at 3 months after excimer treatment, the total higher-order aberrations increased with the Hansatome, but not with IntraLase, although the difference was not significant. A statistically significant increase in coma occurred with the Hansatome, and there was no increase with IntraLase. IntraLase produced minimal changes and may be ideal in patients with low and moderate myopia because of the decrease in higher-order aberrations and the preservation of the residual stromal bed.

Andreea Partal, MD, of Stanford, CA, reported on a study of 102 eyes (56 patients) that underwent LASEK for myopia and myopic astigmatism with the Technolas 217 excimer laser (Bausch & Lomb). Her group compared the uncorrected visual acuity, corrected visual acuity manifest refraction, and complications after treatment.

The mean preoperative spherical equivalent decreased from  $\sim 7$  to 0.03 D at 10 months post-treatment. The uncorrected vision was 20/20 or better in 77% of eyes at 10 months and 20/40 or better in 100% of eyes at 10 months. In addition, 84% of eyes were within 0.5 D of emmetropia, and 93% were within 1 D of emmetropia at 10 months. The efficacy and safety of LASIK were comparable to PRK and LASIK.

John Kanellopoulos, MD, of Athens, Greece, and New York, conducted a randomized evaluation of the AMO Amadeus ( $n = 49$ ) and Moria M2 ( $n = 51$ ) microkeratomes in 100 patients undergoing treatment for myopic astigmatism. All patients were treated with the Allegretto-Wave laser. Combined results showed that both groups did well, with 87% of eyes having 20/20 vision, 47% 20/15, and 32% 20/10 3 months after treatment. All eyes were with 1 D of emmetropia. The M2 produced smaller flaps, 9.2 mm, compared with the Amadeus, 10.8 mm. Both microkeratomes were safe and effective in the treatment of myopic astigmatism. The M2 seemed to be more consistent than the Amadeus in flap thickness, which may result in fewer higher-order aberrations.

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