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Service (sector) Refractive Surgery N° CEP

**A Prospective Comparison of Simultaneous PRK and LASIK for low myopia and myopic astigmatism – a pilot study.**

Authors: Pena, Frederico; Biondi, Adriano; Ciolla, Fabiano; Campos, Mauro Purpose: To compare visual acuity, contrast sensitivity, recovery time, and subjective patient satisfaction of one eye treated with PRK and the fellow eye simultaneously operated on by LASIK. Methods: All patients signed a informed consent approved by the Paulista school of Medicine Ethics Committee, in order to be submitted simultaneously to LASIK in one eye, and PRK in its fellow spherical equivalent (SE) matched eye. Uncorrected visual acuity (UCVA), cyclopeic refraction, and contrast sensibility (VCS-6000) were the main outcome measures pre and postoperatively. A score from 1 to 10 , and a visual analogue scale were used to measure comparatively patient subjective satisfaction at one, seven, and thirty days after surgery. Results: For the eight patients included, mean baseline refraction did not differ among PRK ( $-3,46 \pm 1,1$ ) and LASIK eyes ( $-3,37 \pm 0,36$ ), as well as at one month postoperatively . First day UCVA was significantly better in the LASIK group ( $\text{LogM } 0,15 \pm 0,07$ ) compared to PRK ( $\text{LogM } 0,25 \pm 0,21$ ). One- week and one-month UCVA difference was not significantly different. Subjective grading and scales concerning comfort, pain and related symptoms showed that every patient preferred LASIK during the first 24 h. One week after surgery, 57,2 % of the patients considered the LASIK eye to be more comfortable. At the one month visit, 71,4 % didn't notice any difference among eyes, while 28,6% judged the PRK-eye more comfortable. LASIK vision quality scores were better one week after surgery, but equal to PRK at the one-month postoperative visit. 28,5% preferred the PRK vision thirty days after surgery, while the rest did not describe a noticeable difference between the two eyes. Contrast sensitivity measures did not differ significantly between LASIK and PRK in this small sample.