

R1 R2 R3 PG0 PG1 Estagiário Tecnólogo PIBIC

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Service (sector)

Refractive Surgery

Nº CEP

Therapeutic Lamellar Keratoplasty performed by a Microkeratome – ALTK system

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Purpose: To evaluate the lamellar Keratoplasty performed by a microkeratome and an artificial anterior chamber specially designed for it.

Methods: Thirteen lamellar Keratoplasty were performed in patients with corneal opacities. Patients were evaluated are corneal and external diseases service of the Department of Ophthalmology of UNIFESP – EPM. Preserved corneal shells were used, and all surgeries were performed under peribulbar anesthesia. Different heads of microkeratome were used based on clinical appearance and measurements were obtained with ultrasound biomicroscopy (UBM). The keratectomy in recipient eyes was performed in the same fashion as in refractive surgery using the microkeratone with the head without stopper. The duration of the procedure is virtually the same as for a standart LASIK. Donor cornea shell was sealed onto the artificial hydrostatic chamber. When the desired diameter was determined by applanation. The lens was removed and replaced by the plate, which guided the microkeratome. The same microkeratome was used for both donor and recipient, to perform a free cap in both cases.

Results: The pre operative diagnoses included: Leukoma (post ulcer, post trachoma, post interstitial Keratitis, post chemical burn). Salzmann´s degeneration and Lattice dystrophy. The opacity depth in recipient eyes ranged from 150 microns to 440 microns. In most of the surgeries the head number 300 was used. The thickness of the lamella obtained corresponded the number of the head used plus 30 to 70 microns. All patients improved their visual acuity. The complications were irregular astigmatism, undesired diameter in recipient eyes and donor cornea, and depositis in the interface. We have no cases of perforation and epithelial ingrowth inter interface.

Conclusion: The use of the ALTK system in lamellar Keratoplasty allows reasonable safety in the Keratectomy besides prevision and reproducibility in the lamellar thickness.