New lamellar technique for keratoplasty in children

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Introduction: Penetrating keratoplasty is rarely used in children due to the high rate of rejection. But manual lamellar keratoplasty requires a level of surgical skill that limits its performance. And the visual results in conventional femtosecond assisted lamellar keratoplasty are not good. In order to solve this, we have developed a hybrid lamellar keratoplasty technique with high replicability, since its performance is almost entirely automated, thus guaranteeing a significant percentage of surgery completion. It is named FEHLK (Femto Excimer Hybrid Lamellar Keratoplasty).

Indications: This technique is indicated for any corneal pathology in which the endothelium is unharmed, including keratoconus, superficial and deep corneal opacities and scars.

Technique: This involves making a lamellar cut with a femtosecond laser, with the lamellar keratoplasty program, without completing the central three millimeters, which will later be dissected manually. This makes possible an interface zone in the visual axis of much higher quality than that made by the femtosecond laser. We then make a photoablation with an excimer laser to regularize further the surface of the corneal bed. Finally, the donor tissue is sutured.

Conclusion: With this technique, we can make a reproducible lamellar keratoplasty in children and adults with a very low complication rate, which allows us to maintain the endothelium and extend the life of the graft and decrease rejection, achieving better visual results. This is the best option for pediatric patients.

Biography
Arturo Maldonado-Junyent is a Medical doctor and surgeon, graduated from the National University of Cordoba, Argentina, specialist and master in ophthalmology. He is Head of the anterior segment department of the Clínica de Ojos Maldonado Bas in Córdoba, Argentina. He is also Assistant Professor of the Post-graduate specialization in ophthalmology in the Catholic University of Córdoba and Director of the Postgraduate in Ophthalmology of the Ophthalmology Society of Córdoba, Argentina.

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