

Session 4-I: Cornea: DLEK, PKP, Pterygium**Title: Anterior Lamellar Keratoplasty Combined with Phacoemulsification****Presenter:** Marc Muraine, MD, PhD**Contributing Authors:** Gérard Brasseur, MD, PhD, Etienne Gardea, Julie Gueudry**Purpose:** To describe a technique which combines deep lamellar keratoplasty (DLK) and cataract surgery in patients with cataract and corneal stromal pathologies.**Methods:** Ten patients underwent combined DLK and phacoemulsification. Surgical indications were herpetic keratitis in 3 cases, non herpetic keratitis in 4 cases, corneal abscess in 2 cases, herpes zoster in 1 case. Deep lamellar dissection is performed using a modified 'big bubble technique' in order to visualize anterior segment. Bared Descemet's membrane is coated with viscoelastic substance and a standard phacoemulsification is performed through a 3.2-mm corneal incision. At the end of surgery, a full thickness corneal graft is sutured after removal of Descemet's membrane.**Results:** Postoperative mean visual acuity was 0.5 (0.3 to 0.8) and was comparable to those achieved by deep lamellar keratoplasty in patients without cataract. There were no complications at all in 9 patients. In all cases the « divide and conquer » technique was deemed preferable and safer, using rather low aspiration rates to prevent any risks of the anterior chamber collapsing. In one case, the corneal incision reached the trephination limit, inducing a permanent leak on that site, but surgery could be carried out to full completion. Cornea became clear in all cases. None of the ten patients manifested any signs of rejection during the post-operative period. One patient required a deep lamellar graft exchange 18 months later due to of high astigmatism despite refractive incisions.**Conclusion:** DLK should be the first choice of keratoplasty in most patients without endothelial abnormalities and particularly in eyes with corneal neovascularization. When patients present with cataract, the resilience of bared Descemet's membrane can withstand all steps of phacoemulsification and implantation. Therefore, patients will enjoy more rapid visual recovery than by two-step surgery and retain all the benefits of lamellar keratoplasty.