

was achieved in 78.9% with ICL and in 63.4% with LASIK correction. ( $p < 0.001$ ). No serious complications were observed.

**Conclusion:** Phakic ICL implantation is a good alternative of LASIK for high myopia correction. It has high capacity and characterized by a low degree of high order aberrations that resulted in high quality of visual acuity. Moreover the procedure is reversible if necessary.

## **ETIOSURGERY OF TOTAL POST-BURN LIMBAL DEFICIENCY BY ALLOGENEIC LIMB TRANSPLANTATION**

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**Purpose:** Analysis of results of allolimbal fragments transportation, conserved by normothermia within 21-28 days, in post-burn corneal leukoma and recurrent pterygiums.

**Methods:** Allolimbal fragments transplantation, conserved by normothermia, was performed in 16 eyes, 6 eyes were with post-burn corneal leukoma, and was combined with penetrating keratoplasty. In 10 eyes with recurrent pterygiums was performed allolimbal transplantation, in which on the limbal area within the dissected body of the pterygium were fitted limbal transplants and fixed by interrupted sutures. Limbus allotransplantants conservation was performed in the modified environment DMEM/F12 with glutamine, insulin, dexamethasone, embryonal serum, HEPES and antibiotic-antimycotics composition in terms of CO<sub>2</sub>-incubator at 37° C, 95% of humidity and 5% of CO<sub>2</sub>, and for 21-28 days.

**Results:** After keratoplasty in the post-burn corneal leukomas in the early postoperative period the transplantant epithelialization was observed in the epithelial graft for 7-14 days, due to the limbus transplants epithelium. Within 6 months after the surgery, corneal transplants has been remained transparent. After allolimbal transplantation any relapses in patients with recurrent pterygiums was not observed, patients` observation has been currently continuing. Conservation of limbus allotransplantants allows significantly increase the number and activity MSC-like limbus cells and significantly reduce the concentrations of histocompatibility antigens in transplantants, that allows not to use immunosuppressive therapy in the postoperative period.

**Conclusions:** Combined performing of penetrating keratoplasty and allolimbal fragments transplantation, conserved by normothermia within 21-28 days, significantly increases the percent of corneal transparent retention. Allolimbal fragments transplantation, conserved by normothermia within 21-28 days, in recurrent pterygium - pathogenetically reasonable treatment method, which doesn't require immunosuppressive therapy. Eliminating sectoral limbus deficiency, it creates a barrier to the growth of the conjunctiva.