excimer laser system. Uncorrected visual acuity (UCVA), best corrected visual acuity (BCVA), refraction, fundus evaluation and topographical changes were evaluated before and 1, 3, 6 and 12 months after surgery.
Results: LASEK was performed successfully in all patients. The mean spherical equivalent before surgery was – 4.3 (SD 0.5). The postoperative refraction was within +/-1.0 diopter of the intended correction in all cases. The uncorrected visual acuity improved in all the eyes and the best corrected visual acuity improved or remained same in all the eyes. There was no retinal complication after LASEK.
Conclusion: LASEK may be considered for treatment of myopic refractive errors in eyes that have had previous surgery for retinal detachment. However, predictability may be worse than generally reported in eyes with no previous scleral buckling surgery.

IMPLANTATION OF KERATOPROSTHESIS IN THE FILATOV INSTITUTE: ELABORATION, STUDY AND RESULTS OF APPLICATION

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Purpose: We perform keratoprosthesis to restore vision in patients with severe leucomas, unsuitable for optical corneal grafting. The problem of keratoprosthesis is being worked out in the Filatov Institute since 1966. The aim of the study was to analyse results of our methods of keratoprosthesis.
Methods: We have developed new constructions of keratoprostheses, new methods of operations as well as different ways of leucoma strengthening during this period. Complications associated with keratoprosthesis were studied; methods of their prevention and treatment were worked out. Keratoprosthesis according to the developed techniques has been performed in 1060 eyes of 1040 patients with severe leucomas of different aetiology: burns, 725 eyes (68.4%); trauma, 120 eyes (11.3%); keratitis and ocular pemphigoid, 108 eyes (10.2%); and bullous keratopathy, 107 eyes (10.1%). Visual acuity before keratoprosthesis consisted of light perception in 962 eyes (92%), and 98 eyes (8%) had minimal visual acuity (1/200–1/50). Both eyes were blind (visual acuity less than 1/200) in 955 patients (91.8%). Age of patients varied from 10 to 80 years. Period of blindness varied from 1 to 52 years.
Results: As a result of keratoprosthesis, visual acuity of ≥1/200 was restored in 1023 of 1060 eyes (96.5%). Visual acuity of 20/200–20/20 was achieved in 716 eyes (67.5%). At the last follow-up visit visual acuity of ≥1/200 was preserved in 806 eyes (76%), visual acuity of 20/200–20/20 was measured in 583 of 1060 eyes (55%) and good keratoprosthesis fixation in the cornea was achieved in 986 of 1060 eyes (93%). The minimal follow-up was 12 months (range, 12 months to37 years, median 5 years). The best results were obtained using our “universal separable” construction of keratoprostheses (1978), “two-stage method” of the operation (1974) with application of combined methods of superficial and intralamellar leucoma strengthening using patient’s oral mucosa and ear cartilage in vascularised leucomas or intralamellar corneal graft (posterior stroma and Descemet’s membrane) in non-vascularised leucomas.
Conclusions: Our technique of keratoprosthesis is an effective method to restore vision in patients with leucomas unsuitable for optical corneal grafting. This is our solution of keratoprosthesis problem at present.