

27th European

Ophthalmology Congress

November 26-28, 2018 | Dublin, Ireland

Intrastromal paralimbal implantation of donor corneal segments in patients with progressive keratoconus

Kuderko I, Pozniak N, Krishtopenko G and Beliakovskii P
Medical Center MTZ, Republic of Belarus

Purpose: To evaluate the effectiveness of intrastromal implantation of donor corneal segments in paralimbal zone of the cornea in patients with progressive keratoconus.

Methods: The main group consisted of 21 eyes of patients with progressive keratoconus in which the cornea were implanted intrastromal of 2 donor corneal segments paralimbal to a depth of 350 mkm on 11 and 13 hours. Corneal segments were formed from a donor cornea in paralimbal zone, their size was 5-6 mm x 1.5 mm x 0.3-0.35 mm. The control group was 21 not operated eyes. The observation period was 3 years. The method consists in the biological effect of donor corneal segments on paralimbal zone (zone stem cells) of the cornea of the operated patients and this improves metabolic processes.

Results: In the main group UCVA improved from 0.148 to 0.24. BCVA increased from 0.39 to 0.57. Corneal topography had changed: the average cylinder decreased from 6.4 D to 5.5 D. Central corneal thickness was 434 mkm μ m before and 438 mkm after surgery. In the main group total number of endothelial cells increased from 2494 to 2634, as well as increased the percentage of hexagonal endothelial cells from 41.5% to 44.9 %, All changes in the main group were statistically significant ($P < 0.05$). In the control group, statistically significant changes were not revealed.

Conclusions: Intrastromal implantation of donor corneal segments in paralimbal zone of the cornea is an effective method for stabilization of progressive keratoconus.

Biography

Dr. Kuderko Iryna is an Ophthalmologist working in Medical Center MTZ , Minsk, Republic of Belarus

kadarka5@mail.ru

Notes: