AMNIOTIC MEMBRANE TRANSPLANTATION IN OPHTHALMOLOGY: INDICATIONS AND TECHNIQUES

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Introduction: The human amniotic membrane (HAM) has been proved to possess a multitude of beneficial effects - stimulation of epithelialization, antiangiogenic, antibacterial and antiinflamatory effects, which can be very useful in many ophthalmological indications, such as corneal trophic ulcers resistant to medication and some cases of ocular surface destruction. Besides evaluating the efficiency of the HAM transplantation in this paper, we tried to describe our experience with amniotic membrane in the treatment of ocular surface abnormalities.
Purpose and objectives: To introduce the HAM transplantation indications in ophtalmology, to present the methods an techniques of HAM aplication on the human eye, to describe our experience with the amniotic membrane and to analyse the transplantation outcomes in patients with corneal ulcers of diverse etiology.
Materials and methods:19 patients were included in the study. All of them underwent HAM transplantation from December 2014 to March 2015, at the MCH „St. Trinity". The patients presented corneal ulcers of diverse complexity and etiology and were distributed in 3 main categories: group A (n=14), which included patients with corneal erosions in dry eye syndrome (n=5), viral keratitis (n=6), persistent epithelial defects after corneal abscess (n=2) and chemical burns (n=1); group B (n=4), which included patients with severe stromal thinning and iminent corneal perforation; group C (n=1), with one case of symblepharon and extensive corneo-conjunctival adhesions. The HAM was prepared from a fresh placenta of a seronegative pregnant woman and stored at -80°C. In all cases the amniotic membrane was applied on the ocular surface using the „patch" technique only.
Results: The cornea regenerated satisfactory in 11 patients out of 14 in group A, but the epithelial defect recurred in 3 of these cases. In the second group the transplantation was less effective - 2 patients out of 4 needed further tectonic corneal graft and 1 penetrant keratoplasty was performed. The HAM transplantation showed good results in symblepharon surgery, facilitating epithelialization and preventing corneo-conjunctival adhesions in the group C.
Conclusions: The HAM transplantation proved efficient in facilitating corneal healing and regeneration in patients with persistent epithelial defects, as well as preventing corneo-conjunctival adhesions following symblepharon surgery. Nevertheless, in some cases, further surgery was needed for ocular surface reconstruction. The HAM transplantation wasn't effective enough to prevent the tectonic corneal graft if severe stromal thinning and impending corneal perforation were involved.

EXCIMER LASER REFRACTIVE CORRECTION AFTER RETINAL DETACHMENT SURGERY

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Purpose: To evaluate the efficacy and safety of laser epithelial keratomileusis (LASEK) for correction of myopic refractive errors in eyes after scleral buckling surgery of rhegmatogenous retinal detachment (RRD).
Methods: In a prospective, non-comparative study, six eyes of 6 patients who had a myopic refractive error after retinal detachment surgery underwent LASEK surgery according to the standard protocol. Laser epithelial keratomileusis was performed using Microscan Visum 500 Hz