

of kidney stones with sizes less than 2cm, obstructively. Success rate is up to 90%. Establishing proper treatment with ESWL procedures to decrease the rate of complications and a significant decrease of difficult cases of urinary stones.

**Keywords:** urolithiasis, kidney stones, ESWL

## **196. THE USE OF AMNIOTIC MEMBRANE IN THE TREATMENT OF CORNEAL ULCERS AND OCULAR SURFACE DEFECTS**

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**Introduction:** The human amniotic membrane (HAM) has been proved to possess a vast variety of beneficial effects (stimulation of epithelialization, antiangiogenic, antibacterial and antiinflammatory 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. This paper is an attempt to introduce the HAM transplantation indications in ophthalmology, to present the methods and techniques of HAM application 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:** A total of 19 patients were included in the study. All of them underwent HAM transplantation at the MCH „St. Trinity”. The patients presented corneal ulcers of various 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 imminent 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. The amniotic membrane was applied on the ocular surface using the „patch” technique.

**Results:** The cornea regenerated satisfactorily in 11 patients out of 14 in group A, but the epithelial defect recurred in 3 of them. In the second group the transplantation was less effective - 2 patients out of 4 needed further tectonic corneal graft and 1 penetrating 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 showed good results 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, as the HAM transplantation wasn't effective enough to prevent the tectonic corneal graft if severe stromal thinning and impending corneal perforation were involved.

**Keywords:** corneal ulcers, human amniotic membrane