Silica gel dried amniotic membrane usage in various corneal pathologies in Armenia

Aim: The aim of this study was to evaluate the efficacy of silica gel dried amniotic membrane recently invested in Armenia, transplanted in various corneal pathologies.

Design & Methods: Amniotic membrane is obtained from prospective donors undergoing Caesarean section, who are negative for communicable diseases including HIV, hepatitis B and C and syphilis. The placenta is cleaned with balanced salt solution containing a cocktail of antibiotics under sterile conditions. The amnion is separated from the chorion by blunt dissection. The separated membranes are cut in different sizes and placed into the plastic can with silica gel granules on the bottom. This study included nine patients with recalcitrant herpetic keratitis, 17 pt with corneal perforation from different causes, two pt with candida keratitis, one pt with ICC, four pt with descemetocele of different causes, one pt with scleral melt after pterygium surgery, one pt with band keratopathy, three pt with persistent epithelial defect caused by chemical burn, one pt with suture abscess, one pt with persistent epithelial defect resulted from CIN removal surgery, two pt with sterile ulcer observed in rheumatoid arthritis patient, one pt with spheroidal degeneration, one pt with acanthamoeba keratitis and four pt with bacterial keratitis. All patients received medical therapeutic treatment for 1, 5-2 month before undergoing amniotic membrane transplantation.

Results: Almost in all eyes quick recovery time was noted, stromal edema resolved in three weeks, epithelial healing was improved, irritation and pain quickly subsided. Three pt with herpetic keratitis required repeated AM transplantation.

Conclusion: Silica gel dried amniotic membrane is very effective for treatment of various corneal pathologies, dramatically improves the healing process and helps to regain functional vision in most cases.

Biography

A V Hambardzumyan is a graduate of Yerevan State Medical University where she obtained Diploma of General Practitioner and Faculty of Internal Medicine. She has earned her PhD on silicagel dried amniotic membrane transplantation in various corneal pathologies in 2010. In 1994, she has joined as Ophthalmologist at the Ophthalmologic Center after Malayan, Yerevan, Armenia where her roles include organizing and performing of the diagnostics and treatment of patients with various pathologies and diseases of the eyes. He currently serves as Armenian Eye Bank Director, as well as Member of Armenian Ophthalmological Association.

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