ORIGINAL RESEARCH PAPER

Ophthalomology

TO STUDY THE ROLE OF FREEZE-DRIED AMNIOTIC MEMBRANE IN MANAGEMENT OF PERISTENT CORNEAL EPITHELIAL DEFECT IN MODERATE-TO-SEVERE DRY EYE DISEASE

KEY WORDS:

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Purpose

To report the outcome of freeze-dried amniotic membrane for persistent epithelial defects (PED) in moderate to severe cases of dry eye disease.

Methodology

This is retrospective-prospective observational study included consecutive patients of dry eye disease with persistent epithelial defects treated with freeze dried amniotic membrane and bandage contact lens. Included were patients with an epithelial defect that did not respond to conventional treatment. Excluded were the patients who failed to follow-up.

Results

30 eyes of 30 patients with mean age of 38.8 years (21-58 years) were included in this study. The main etiology of PED was superficial punctate keratitis (n=7/30), followed by chemical burns (n=4/30) and limbal stem cell deficiency (n=4/30), neurotrophic keratitis (n=3/30). Remaining cases were exposure keratitis, vernal keratitis, filamentary keratitis, GVHD, simple herpetic keratitis (n=2/30) respectively, Sjogren's syndrome (n=1/30), herpes zoster keratitis (n=1/30). Time from PED presentation to amnion treatment was 39.1 days (range 16-90 days). The amnion was absorbed within 2 weeks in 100% of the cases. Following insertion of the amnion, resolution of the PED was achieved in 26/30 eyes (86.6%) without the need for additional interventions within 20.7 days (range 7-35 days) with no complications recorded.

Conclusion

Dried amniotic membrane achieved resolution of PEDs secondary to various etiologies of dry eye disease in 86.6% of eyes with a significant improvement in vision demonstrated. Further studies are needed to assess long term safety and effectiveness.