



AMNIOTIC MEMBRANE USE FOR HERPETIC CORNEAL ULCERATIONS

Introduction/Synopsis/Purpose of Case Study

In an optometric/ophthalmology clinic, it is essential to be prepared to encounter, treat, and manage a variety of conditions, both simple and complex. It is important to have the ability to utilize different techniques and have an arsenal of treatment options to ensure patient satisfaction and best visual outcomes. The use of amniotic membranes for ocular anterior segment conditions has been very beneficial for patients that require urgent, advanced treatment, especially in the setting of previous failed treatment modalities. This case chronicles the use of the Atlas Ocular Apollo Amniotic Membrane graft for a high-risk central corneal ulcer.

Case Summary

A 61-year-old white male patient initially presented with a chief complaint of significant eye pain and photophobia of the left eye associated with substantial reduced vision. The ocular symptoms had been increasing steadily for two months and recently had increased in severity. Pertinent ocular conditions included uncontrolled blepharitis and a patient reported unspecified epithelial defect treated with antibiotic ointment with little to no improvement. Systemic conditions include diabetes mellitus (Type 2), hypertension and anxiety disorder.

Clinical Assessment

Initial examination revealed a central corneal ulcer of the left eye with concurrent posterior stromal involvement in the form of a disciform lesion as well as 2-3+ injected conjunctiva with 2-3+ chemosis. Trace cells were detected in the anterior chamber.

Monocular vision was measured at 20/400 OS.

Posterior views were limited secondary to patient's extreme photophobia.



Clinical Decision Making

This case came to a difficult crossroad because of the epithelial ulceration and stromal involvement. It was essential to balance treatment for both aspects of the ocular condition to maintain corneal integrity and give the best chance to reduce stromal scarring to preserve and regain vision. The patient required advanced treatment due to the history of unsuccessful treatment, level of reduced vision, and case presentation. This was a perfect opportunity to utilize Atlas Ocular Apollo dehydrated amniotic membrane. A 14 mm membrane was selected and placed inside an approved bandage contact lens and then placed on the left eye to cover the defect. At this stage, due to the central nature of the epithelial defect, topical antibiotic moxifloxacin 0.5% treatment was added every two hours for the first three days. The disciform stromal involvement observation led to utilizing low dose topical anti-inflammatory drops accompanied by oral anti-viral medication in the form of Valtrex 500 mg TID for 7 days. On follow ups it was essential to balance and invert the antibiotic vs. steroid dosage as the epithelial defect was healing, to prevent as much scarring as possible.

Results

The patient followed the treatment exactly as directed. The amniotic membrane graft was essential to control and expedite the healing of the epithelial ulceration and act as a healing matrix reservoir for the diseased cornea. The dosage of antibiotic and steroids were used inversely to promote less scarring in conjunction with the oral anti-viral. This was critical as the defect was central in nature along the visual axis. The patient's final visual acuity is 20/30, an astounding accomplishment considering the risk associated with a dangerous central cornea ulcer with stromal involvement.

Disclaimers

Dr. Rowe is not affiliated with, nor is he a paid consultant for Atlas Ocular.



Cameron Rowe, O.D. grew up in Annapolis, Maryland. He earned his Doctor of Optometry degree from Salus University, Pennsylvania College of Optometry in Elkins Park, Pennsylvania, and a Bachelor of Science from Penn State University. He graduated summa cum laude with clinical honors. He currently practices full scope optometry at Access Eye in Fredericksburg, Virginia.



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