

2009 Research Days Abstract Form – Department of Ophthalmology – UNIFESP/EPM

2. SCIENTIFIC SECTION PREFERENCE (REQUIRED):

Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.

3. PRESENTATION PREFERENCE (REQUIRED) Check one:

- Paper
- Poster
- FAST Paper

4. The signature of the First (Presenting) Author (REQUIRED) acting as the authorized agent for all authors, hereby certifies that any research reported was conducted in compliance with the Declaration of Helsinki and the 'UNIFESP Ethical Committee'

Charles Costa de Farias

Scientific Section Descriptions (two-letter code):

- (BE) OCULAR BIOENGINEERING
- (CO) CORNEA AND EXTERNAL DISEASE
- (CA) CATARACT
- (EF) ELECTROPHYSIOLOGY
- (EP) EPIDEMIOLOGY
- (EX) EXPERIMENTAL SURGERY
- (GL) GLAUCOMA
- (LA) LABORATORY
- (LS) LACRIMAL SYSTEM
- (LV) LOW VISION
- (NO) NEURO-OPHTHALMOLOGY
- (OR) ORBIT
- (PL) OCULAR PLASTIC SURGERY
- (PH) PHARMACOLOGY
- (RE) RETINA AND VITREOUS
- (RS) REFRACTIVE SURGERY
- (RX) REFRACTION-CONTACT LENSES
- (ST) STRABISMUS
- (TR) TRAUMA
- (TU) TUMORS AND PATHOLOGY
- (UV) UVEITIS
- (US) OCULAR ULTRASOUND

Deadline: Oct 13 ,2009

FORMAT:
Abstract should contain:

- Title**
- Author, Co-authors (maximum 6),**
- Purpose, Methods, Results,**
- Conclusion.**

Poster guidelines:
ARVO Abstract Book (1.10 x 1.70m)

4. FIRST (PRESENTING) AUTHOR (REQUIRED):

Must be the author listed first in abstract body.

- () R1 () R2 () R3 () PIBIC
- () PG0 (X) PG1 () Fellow () Technician

Last Name: Farias
First Name: Charles
Middle:Costa

Service (Sector): CORNEA AND EXTERNAL DISEASE

CEP Number: 0060 / 04

COMPARISON BETWEEN CORNEAL AND AMNIOTIC MEMBRANE GRAFTS TO RESTORE CORNEAL THINNING

**Farias CC, Hazarbassanov RM,
Vieira LA, Souza LB, Allemann N, Gomes JAP**

Introduction: Corneal thinning may occur secondary to a variety of ocular surface conditions, as rheumatologic diseases, infections and after surgeries. Different methods have been reported to treat this condition such as the use of tissue adhesives, bandage contact lenses, corneal patch and more recently amniotic membrane graft.

Purpose: To compare the use of corneal graft vs. multilayer amniotic membrane transplantation for the surgical repair of corneal thinning.

Methods: Prospective, comparative, randomized, interventional study of nineteen eyes of nineteen patients presenting corneal thinning of different sizes and depth. The causes of the corneal thinning were: rheumatoid arthritis (n=1), band keratopathy (n=1), Stevens-Johnson syndrome (1), infectious (9), trauma (n=1) and postsurgery (n=6). The mean age was 61,05 years (45-80 years) and all patients were operated by the same surgeon and followed for 180 days. Ten patients underwent corneal grafting and nine underwent transplantation of two or three layers of amniotic membrane. The corneal and amniotic membrane grafts were sutured in place with interrupted 10-0 nylon sutures.

Results: Mean epithelialization time was 29 days (range 7–150 days). The outcome was considered successful (rapid reepithelialization of the ocular surface with negative fluorescein and recovery of tissue thickness without recurrence of the thinning for 8 weeks) in 89% (17/19) of eyes. Both groups showed a significant increase (p<0,05) in the thickness of the cornea in the sixth month when compared with pre operative status. A persistent epithelial defect was noted in only two eyes. In one patient, amniotic membrane transplantation gradually dissolved over a period of three months. In another patient, the corneal patch presented an immunological reaction, but stromal thickness remained stable.

Conclusion: These results suggest that either multilayer amniotic membrane transplantation or corneal patch may be effective for the treatment of corneal thinning.

Keywords: cornea, corneal transplantation, corneal ulcer, amnion,