Senior Project
Fitting the Toric Cornea

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Introduction

The purpose of this project is to try and show the proper fit of a toric cornea with a rigid gas permeable lens. The cornea with toricity of more than 1 to 1.5 diopters or so is best fit with a contact lens that has a toric base curve. This video will show several different spherical contacts on a toric cornea to first show the fluorescein patterns of lenses that would not sit properly on the eye. Next toric base curve lenses will be fit both on K, flatter and steeper than K, to show how the correct lens will ride on the eye.

Data

The following lenses were fit on a patient with keratometer readings of:

Rt eye: central Ks, 42.00/45.00 at 088 Base curve, 8.03/7.49mm
apical ks, 42.00/45.12 at o88

Lf eye: central Ks, 42.12/45.50 at 088 Base curve, 8.00/7.41mm
apical Ks, 42.12/45.62 at o88

Spherical Lenses: All have diameter of 9.2mm

B.C. 8.06 on K
B.C. 8.16 0.50 flat
B.C. 8.26 1.00 flat
B.C. 7.96 0.50 steep
B.C. 7.81 1.25 steep

Toric Lenses: All have diameter of 9.0mm

B.C. 8.05/7.50 on K
B.C. 8.13/7.58 0.50 flat
B.C. 8.23/7.67 1.00 flat
B.C. 7.94/7.42 0.50 steep
B.C. 7.85/7.35 1.00 steep

Results

Each of the above lenses were video taped showing their fluorescein patterns. This tape is going to be used in an educational video to help students better understand fitting toric corneas that require a rigid lens fit.