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

3. FIRST (PRESENTING) AUTHOR (REQUIRED):
Must be the author listed first in abstract body.

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

Last Name: PARANHOS
First Name: JULIANE
Middle: de Freitas Santos

Service (Sector):   REFRACTIVE SURGERY

CEP Number: 0490/06

5. ABSTRACT (REQUIRED):

Factors related to good outcomes on patients quality of life after intracorneal ring segments implantation in patients with keratoconus.
Paranhos JFS, Paranhos Jr A, Ávila MP, Schor P.

PURPOSE: To prospectively evaluate the outcome of Keraring® intracorneal ring segments (ICRS) implantation on quality of life of patients with keratoconus using the NEI-RQL (National Eye Institute Refractive Error Quality of life) instrument.
METHODS: The NEI-RQL was administered to patients that had indication for ICRS implantation before and after surgery when they were wearing the best correction for at least one month. Visual acuity, refraction, corneal topography (CT) and contrast sensitivity (CS) data was recorded before and 3 months after surgery. Aberrometry data was obtained from CT using VOL-CT® software.
RESULTS: Sixty nine eyes of 42 patients, 19 man, were included in this study. Mean age was 24,9 years. Mean spherical equivalent (SE) was 4,55D (+/-0,46) before and 2,40D (+/-0,30) after surgery in absolute values. (p<0,001) Steep keratometric reading (Kmax), RMS low order, binocular best corrected visual acuity and best spectacle corrected visual acuity had a significant improvement in all operated eyes.The mean overall questionnaire scale increased from 31,88 ±14,4 before to 64,7 ±12,9 after surgery (p<0,001). The subscales that had more important improvement were "clarity of vision", "near vision", "far vision", "activity limitation", "appearance" and "satisfaction", these subscales ranged from 25 to 50 before surgery to 80 and 90 after it. CS improved in all frequencies (p<0,005). Patient quality of life was related to gender (male more satisfied than female), cylinder (1,00D reduction on cylinder makes the general satisfaction rise 5 scores), and CS at frequencies of 3 and 6 cpd. CONCLUSION: Comparing NEI-RQL scores after surgery with quantitative data we concluded that patient´s quality of life improvement after ICRS implantation is related to cylinder reduction and normal CS of 3 and 6 cpd. We advocate that optical tests be used in conjunction to questionnaires when evaluating human highly aberrated visual systems.

Keywords: Keratoconus, quality of life, cornea