Abstract Title:
Ocular rigidity after Refractive Surgery with Excimer Laser

Purpose:
To assess if there are changes on ocular rigidity in 30 and 90 days in eyes that underwent Lasik.

Design:
Prospective study

Participants:
Patients that underwent Lasik surgery.

Main Outcome Measures:
Comparison between the ocular rigidity before and after Lasik surgery.
IOP measured by Goldmann’s applanation tonometry and by the 5.5 and 10 gm. and 7.5 and 15 gm. weights Schioetz tonometry.

Methods:
Comparative study of ocular rigidity of 20 eyes pre and post Lasik surgery. The ocular rigidity was assessed by two methods: combined (Goldmann’s applanation tonometry and the 7.5 gm. weight Schioetz tonometry) and differential tonometry (the 5.5 and 10 gm. and 7.5 and 15 gm. weights Schioetz tonometry).

Results:
There was no difference among the mean values of ocular rigidity calculated by the combined method before and 30 and 90 days after Lasik. Using the differential method with the 5.5 and 10 gm. weights Schioetz tonometry the ocular rigidity was diminished in all eyes in 30 and 90 days after Lasik. However, with the 7.5 and 15 gm. weights Schioetz tonometry the reduction of ocular rigidity was not statistically significant.

Conclusion:
The results suggest the refractive surgery with Lasik does not change the ocular rigidity calculated by the combined method and by the differential method with the 7.5 and 15 gm. weights Schioetz tonometry using the Friedenwald’s tables. However, a greater number of eyes need to be studied to validate our data.