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Service (sector)

Refractive Surgery

Nº CEP

490-06

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**Evaluation of the impact of intracorneal ring segments implantation on quality of life of patients with keratoconus using the NEI-RQL (National Eye Institute Refractive Error Quality of life) instrument.**

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**PURPOSE:** To evaluate the outcome of intracorneal ring segments implantation on quality of life of patients with keratoconus using the NEI-RQL (National Eye Institute Refractive Error Quality of life) instrument.

**METHODS:** The questionnaire was administered to patients that had indication for intracorneal ring implantation before and after surgery when they were wearing the best correction for at least one month.

**RESULTS:** Twelve patients were included in this study. Descriptive statistics were used due to the small number of patients in this pilot study. Before surgery the spherical equivalent (EE) ranged from +0,75D to -16,15D (mean -3,94D  $\pm$  4,37) and after the ring implantation it ranged from -5,75D to +0,125D (mean -1,69D  $\pm$  1,95) considering operated and non operated eyes. Best corrected visual acuity ranged from 0 to 1,2 (mean 0,39  $\pm$  0,31) log mar before surgery and from 0,9 to 0 (mean 0,17  $\pm$  0,20) after surgery. The best corrected visual acuity improved in all operated eyes. The mean overall questionnaire scale increased from 42,14  $\pm$  15,65 before to 73,03  $\pm$  7,32 after surgery. Patient satisfaction was greater in subscales of clarity of vision (mean ranged from 34,85 before to 78,22 after surgery), expectations (mean 4,55 to 40,91), far vision (mean 46,16,75 to 82,17), near vision (mean 40,15 to 83,71), vision fluctuations (mean 37,12 before to 70,08 after) and suboptimal correction (mean 13,64 to 34,09) and satisfaction with correction (45,45 to 85,45). Worry about the disease, symptoms and appearance were about the same after surgery.

**CONCLUSIONS:** Intracorneal ring implantation surgery improved many aspects of quality of vision and the overall scale suggesting that the quality of life improved after surgery regardless of changes in visual acuity. In the next study we'll use a larger sample so we could use analytic statistics to prove our initial conclusions.