Quality of life with different modes of visual correction

1António Queirós, O.D., PhD student, 2César Villa-Collar, FAAO, PhD, 3Ángel Ramón Gutiérrez, MD, PhD, 1Sofía Cláudia Peixoto-de-Matos, O.D., 1Jorge Jorge, O.D., PhD, 1José Manuel González-Méijome, FIACLE, PhD

1CEORLab. Center of Physics. University of Minho., Braga, Portugal, 2Department of Optica and Optometria. European University de Madrid., Madrid, Spain, 3Department of Ophthalmology, University of Murcia, Murcia., Madrid, Spain

Corresponding Author: aqp@fisica.uminho.pt

Purpose: To evaluate different aspects of the visual related quality of life using the National Eye Institute Refractive Error Quality of Life (NEI RQL-42) in myopic patients corrected with different treatments including LASIK, orthokeratology, soft contact lenses (SCL) and spectacles.

Method: NEI RQL-42 questionnaire was administered to 217 patients in one single clinic. All the questions integrated 13 different categories that were analyzed separately. The results from myopes between -1.00 and -3.00 Diopters that undergone LASIK (n=41), orthokeratology (n=37), soft contact lenses (n=44) and eyeglasses (n=45) were compared against those obtained from emmetropic patients (n=50).

Results: There were statistically significant differences among all groups in all categories except for satisfaction with correction (p=0.135). Average decrease in values of quality of life compared to emmetropes, were -7.1% (p=0.021) for LASIK, -13.0% (p<0.001) for orthokeratology, -15.8% (p<0.001) for eyeglasses and -17.3% (p<0.001) for soft contact lenses.

Conclusions: Despite all treatments under evaluation satisfy the requirements of visual correction there are significant differences among groups. LASIK showed lower average decrease in quality of vision compared to emmetropes. However, orthokeratology was comparable to LASIK in terms of independence of visual correction, and SCL were superior to those two treatments in terms of glare. Except for glare and diurnal fluctuations contact lenses (SCL and Ortho-K) were comparable or superior to spectacle correction.