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Service (sector) Refraction and Contact lenses N° CEP

COMPARATIVE STUDY BETWEEN PHOTOREFRACTIVE KERATECTOMY (PRK) AND BUTTERFLY LASER EPITHELIAL KERATOMILEUSIS (LASEK BUTTERFLY): FOLLOW UP OF ONE YEAR.

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PURPOSE

To evaluate and compare the post-operative results of two different techniques of surface refractive surgery with excimer laser: photorefractive keratectomy (PRK) and butterfly laser epithelial keratomileusis (LASEK butterfly).

METHODS

A randomized prospective evaluation will be performed in 90 eyes of 45 patients that will have refractive surgery at Sadalla Amin Ghanem Eye Hospital. Each patient will randomly have one eye operated by PRK and the other by LASEK butterfly technique. Inclusion criteria are patients between 21 and 35 years old, myopia between -1,50D and -5,50D, less than 1,75D of astigmatism, spherical anisometropia less or equal 1,5D, normal videokeratography and anterior segment examination, best corrected visual acuity (BCVA) of 20/25 or better and at least one year of follow-up. Exclusion criteria include any ocular disease other than myopia and astigmatism, previous ocular surgery, auto-immune diseases, diabetes, pregnancy and nursing. All patients will have full ophthalmologic examination including manifest and cycloplegic refraction, BCVA and uncorrected visual acuity (UCVA), ocular motility, schirmer test without anesthetics, slit lamp examination, intraocular pressure, corneal topography, orbscan, ultrasonic pachymetry and indirect ophthalmoscopy with periphery evaluation. All data will be registered, as well as, the data regarding name initials, age, gender, race and profession. Post-operative evaluation will be performed on days 2 and 4; 2 weeks; 1, 3, 6 and 12 months. If on the fourth day the corneal epithelium is not healed, examinations will be performed every day until the contact lens can be taken out. It will include manifest and cycloplegic refraction, BCVA and uncorrected visual acuity (UCVA), schirmer test without anesthetics, slit lamp examination including epithelization time, punctate keratopathy and haze, intraocular pressure and indirect ophthalmoscopy with periphery evaluation. Subjective symptoms as night halos, visual quality, early post-operative pain and discomfort will also be evaluated.

RESULTS

Study to be concluded. The follow up is not finished yet.