( ) R1 ( ) R2 ( ) R3 ( ) PG0 (X) PG1 ( ) Estagiário ( ) Tecnólogo ( ) PIBIC Last Name - Marangon First Name - Fabiana Middle - Bogossian

Service (sector) Cornea and External Disease Nº CEP

The effect of moxifloxacin on the normal human cornea.

Marangon FB, Donaldson KE, Schatz L, Venkatraman AS, Alfonso EC. Bascom Palmer Eye Institute, Miami, Florida 33136, USA. OBJECTIVE: To investigate the effects of moxifloxacin on the cornea of normal human eyes using confocal microscopy and slit-lamp biomicroscopy. METHODS: This study enrolled adult volunteers who had a normal baseline ophthalmic examination. The dose regimen, similar to that of patients undergoing cataract extraction, was one drop of moxifloxacin in one eye four times a day for 3 days. The untreated fellow eye served as the control. Subjects had a baseline examination (Visit 1), started moxifloxacin the next day, and were examined 24 h (Visit 2) and 72 h (Visit 3) after starting medication. At each visit, visual acuity and adverse effects were recorded, slit-lamp examination with fluorescein was used to measure tear break-up time, and endothelial and epithelial cell counts were determined using confocal microscopy. RESULTS: Fifteen volunteers (mean age 37 +/- 7 years) enrolled. No significant difference in visual acuity, tear break-up time, endothelial or epithelial cell counts was noted between the treated and fellow eye. Subjects experienced no significant decrease in visual acuity, tear break-up time, or endothelial cell counts during the 3-day treatment period in either eye. Epithelial cell counts were stable at Visits 1 and 2, and decreased similarly in the treated and control eye at Visit 3. CONCLUSIONS: Moxifloxacin was safe for use during the 3-day treatment period. Moxifloxacin causes no significant epithelial or endothelial toxicity, and has no effect on visual acuity or ocular surface integrity in healthy subjects treated using a dosing regimen that simulated prophylactic use following cataract surgery.