( ) R1 ( ) R2 ( ) R3 ( ) PG0 (X) PG1 ( ) Estagiário ( ) Tecnólogo ( ) PIBIC

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Phototherapeutic Keratectomy with mitomycin C for the treatment of Adenovirus corneal opacities: A Tissue saving approach

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PURPOSE:
This study evaluated preoperative and postoperative changes in patients with subephithelial fibrosis caused by adenoviral corneal infiltrates submitted to phototherapeutic keratectomy (PTK) using mitomycin C

METHODS:
This prospective, consecutive case series included patients with corneal subephithelial fibrosis presenting uncorrected visual acuity lower than 20/40. Transephithelial PTK was performed and mitomycin C at 0.002% was applied during one minute after the ablation. Depth of ablation was set to a third of the mean depth of the opacity as measured by anterior eye tomography (Pentacam®), optical coherence tomography (Visante®) and ultrasound biomicroscopy. Measurements of uncorrected visual acuity(UCVA), best spectacle visual acuity(BSCVA) were performed pre, 1, 3 and 6 months postoperatively.

RESULTS:
This study included 30 eyes of 24 patients, 8 men and 16 women. The mean time from disease onset was 18.5 months and mean age was 40.6 years (range 18-65). Preoperatively mean depth of corneal opacities was 162.3 microns with UBM, 169.7 with Pentacam® and 142.1 with Visante®. Mean change in spherical equivalent was 0.26 preoperative and 0.83 and 0.89 at 3 and 6 months respectively. After PTK, all patients presented marked reduction of eye complains, no loss of BSCVA and 79.2% of the eyes gained 2 or more lines and UCVA better than 20/40 was achieved in 81.5% at 6 months. The mean corneal thickness reduction was 48 microns and the mean induction of hyperopia was 0.85 D.

CONCLUSION:
Transepithelial PTK with mitomycin C appears to be effective and safe for the treatment of corneal opacities induced by adenoviral keratoconjunctivitis. Longer follow up is necessary to evaluate safety and stability of corneal transparency.