ABSTRACT
CORRELATION BETWEEN HbA1c LEVELS IN TYPE 2 DIABETES MELLITUS WITH MORPHOLOGY OF CORNEAL ENDOTHELIUM (CROSS SECTIONAL STUDY)
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Purpose: To describe the morphology of corneal endothelium in type 2 DM patients and to investigate the correlation between HbA1c levels and morphology of corneal endothelium.

Methods: Non-ccontact specular microscope (TOPCON SP-3000) were performed on 44 diabetic subjects, mean age 54.78 years. Patients with corneal pathology, corneal opacity, inflammation on the eye (uveitis), history of glaucoma, previous intraocular surgery was excluded.

Results: Total 44 patients with type 2 DM consist of 18 male and 26 female, with mean age 54.78 years. Mean HbA1c levels was 8.31%, mean ECD was 2663.5 cells / mm², mean CV was 35.95%, and mean percentage hexagonal cells was 54.95%. HbA1c levels were divided into 2 groups, HbA1c ≤ 6.5% (group 1) and HbA1c ≥ 6.5% (group 2). There was no significant differences ECD and hexagonality between groups 1 and 2 (p = 0.07, p = 0.44). There was a significant difference of CV between groups 1 and 2 (p = 0.02)

Conclusion: There was no correlation between HbA1c levels in type 2 DM patients with morphology of corneal endothelium.

Keywords: corneal endothelium, HbA1c, diabetes mellitus