Abstract

Correlation between central corneal thickness and endothelial cell density in non-glaucomatous pseudoexfoliative eyes – a comparative study

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Purpose: To describe correlation between central corneal thickness (CCT) and endothelial cell density (ECD) in non-glaucomatous pseudoexfoliative eyes and compare them with age-matched normal eyes.

Study Design: Cross sectional comparative study.

Participants and Methods: Forty eyes of forty subjects with Pseudoexfoliation syndrome (Group A) and forty eyes of forty age-matched subjects without PXS (Group B) were included. Subjects suffering from diabetes, myopia, glaucoma, any pathology of anterior segment, ocular trauma, inflammation or surgery, and contact lens wearers were excluded. Included eyes underwent non-contact specular microscopic examination (Topcon SP2000.P, Topcon Corp. Japan.) to get data about CCT and ECD.

Results: CCT in group A was significantly lower than group B (484.68 + 19.727 Vs 500.25 + 24.777 µm, p= 0.003). ECD in group A was significantly lower than in group B (2124.60 + 251.818 Vs 2431.43 + 224.820 cells/mm2, p<0.000). There was non-significant correlation between ECD and CCT in both groups.

Conclusion: Non-glaucomatous pseudoexfoliative eyes have thinner corneas with decreased ECD. Knowledge of these parameters may be helpful in interpreting intra-ocular pressure and planning surgical procedures. Al-Shifa Journal of Ophthalmology 2009; 5(2): 67-70 © Al-Shifa Trust Eye Hospital, Rawalpindi, Pakistan.