COMPARATIVE EVALUATION OF KERATOCONUS EYES WITH PENTACAM TOPOGRAPHY

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Purpose: To evaluate anterior segment parameters of Pentacam topography in eyes with keratoconus and to compare them with normal eyes.

Methods: The Pentacam measurements of 78 keratoconic eyes were evaluated and were compared with emetropic, ametropic and post-eximer laser eyes. Anterior and posterior keratometry, topographic astigmatism, axis, asphericity and central corneal thickness, corneal and anterior chamber volume and depth of all cases were evaluated with Pentacam.

Results: Anterior and posterior keratometric values were significantly different in keratoconus eyes (p < 0.001). Anterior and posterior topographic astigmatism were same with mixed astigmatism group (p=1.0 ve p=0.706). Although anterior asphericity was similar with the hyperopic excimer laser group (p=1.0), posterior asphericity was significantly different from all remaining groups (p < 0.001). Central corneal thickness was similar with the myopic excimer laser group (p=1.0).

Conclusion: When the other groups are taken into consideration, anterior and posterior keratometry and posterior asphericity was significantly different in eyes with keratoconus. This study shows the importance of posterior keratometry and asphericity besides anterior keratometry in the topographic evaluation of keratoconus.