

Changes in corneal topography in children with vernal kerato-conjunctivitis at a tertiary referral center in Saudi Arabia

Lama Yousef Alsamnan

Global Eye Care, Saudi Arabia

Introduction & Aim: The association of Vernal Keratoconjunctivitis (VKC) and keratoconus is well documented. The aim is to determine the characteristics of corneal topography among children with VKC compared to normal subjects and to determine the prevalence of subclinical keratoconus in patients with VKC. It is a cross sectional study.

Method: Forty (40) consecutive subjects (80 eyes) with VKC (VKC group) and 40 normal subjects (80 eyes) (control group) were included in this study. Clinical assessments included measurement of visual acuity with a LogMAR chart, cycloplegic refraction, complete slit lamp biomicroscopy and Goldman applanation tonometry. Pentacam (Oculus Optikgeräte GmbH, Wetzlar, Germany) derived corneal topography indices were recorded for both groups. Demographic data and topographic indices were analyzed and compared using the unpaired t-test between groups. Statistical significance was indicated by $p < 0.05$.

Result: Thirty-three (82.5%) patients in the VKC group were males. The mean age at presentation was 10.43 ± 1.99 years in the VKC group. Subclinical Keratoconus (KC) was found in 48 eyes (60%). Compared to the control group, Maximum anterior elevation, Keratoconus Index, Central Keratoconus Index, Index of Surface Variance, Index of Vertical Asymmetry, Index of Height Decentration were significantly higher in the eyes with VKC with subclinical KC while Minimum Sagittal Curvature was significantly lower ($p < 0.05$, all comparisons).

Conclusion: Compared to the normal control group, patients with VKC had a greater preponderance of myopic astigmatism that required correction. Sixty percent (60%) of patients with VKC had abnormal Pentacam indices compared to the control group.

Biography

Lama Yousef Alsamnan has completed her Doctor of Optometry degree from King Saud University, Collage of Applied Medical Sciences, Optometry Doctor Program and Degree of Honor in 2018. Currently, she is working as an Optometry Doctor at Global Eye Care, Riyadh and has been serving as a Researcher at King Khaled Eye Specialist Hospital, Riyadh.

lama.y.s@hotmail.com