

عنوان مقاله:

Normal Values of Keratoconus Indices before its Development of Keratoconus

محل انتشار:

بیست و هشتمین کنگره سالیانه انجمن چشم پزشکی ایران (سال: 1397)

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خلاصه مقاله:

Purpose: To determine the distribution of keratoconus indices before its manifestation. **Methods:** This cross-sectional study was conducted in children living in urban and rural areas of Shahroud, in 2015. In rural areas all primary school students were selected, while one stage cluster sampling was applied to select students living in urban areas. After obtaining informed consent from the students and their parents, optometric and ophthalmic examinations and imaging studies were done. Uncorrected visual acuity, and corrected visual acuity, non-cycloplegic refraction, cycloplegic refraction, and subjective refraction were measured in all students. The Pentacam HR was used for corneal imaging, and the obtained data were used to extract and analyze keratoconus indices. **Results:** Of 5620 students who participated in the study, the data of the right eye of 4947 subjects were analyzed after applying the exclusion criteria. The mean of index of surface variance (ISV), index of vertical asymmetry (IVA), keratoconus index (KI), central keratoconus index (CKI), index of height asymmetry (IHA), index of height decentration (IHD), and mean pachymetric progression index (PPIAve) was 17.63 (17.47 -17.79), 0.14 (0.14 - 0.14), 1.02 (1.02 -1.02), 1.01 (1.01 -1.01), 3.14 (3.07 -3.22), 0.01 (0.01 -0.01), and 0.96 (0.95 -0.96), respectively. The results of multiple linear regression analysis showed that ISV, KI, IHD, and PPIAve were significantly higher in girls. ISV was higher in urban students and CKI and PPIAve were higher in rural students. Except IHD and IHA, the mean value of other keratoconus indices was significantly lower in 12-year-old students compared to 6-year-old ones. **Conclusion:** The results of the present study provide valuable information about normal distribution of keratoconus indices in children aged 6-12 years, considering the effect of sex, refractive error, and living place. These findings can be used in future research and detection of abnormal cases in the clinical setting

کلمات کلیدی:

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