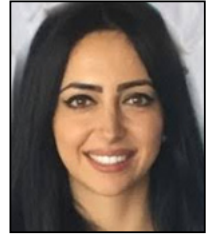


A comparison of two different dental age estimation methods in turkish children



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Biography

Yelda Kasimoglu is doctor of Pediatric Dentistry at Istanbul University, Istanbul, Turkey, where she received his Dental Degree and Specialty Degree in Pediatric Dentistry in 2016. She is an active member of the International Association of Pediatric Dentistry and European Academy of Paediatric Dentistry. Her clinical and research interests include pediatric behaviour management techniques, genetics of dental anomalies and dental traumatology.



Abstract

Objective: Validity of dental age (DA) estimation methods are tested in different populations. The aim of this study is to compare the Demirjian (D) and Haavikko (H) methods in Turkish children. **Methods:** After obtaining ethical approval, panoramic radiographs of 8-14 year-old children in the archives of Department of Oral Diagnosis and Radiology were selected analysed retrospectively. Chronological ages (CA) of the individuals were calculated by subtracting the birth dates from the date of the panoramic x-ray was taken. DA of each child was determined by both D and H methods. Confidence intervals of 95% of the difference between DA and CA and the absolute difference are given. Regression models are formulated separately for each gender and DA method. The significance level was set to be $p < 0.05$. **Results:** The mean CA of the 293 children is 10.098 ± 1.74 years. 51.2% (n=150) of the cases were boys and 48.8% (n=143) were girls. The mean value of the results obtained with the H method for both gender was close to CA compared to the mean results obtained with the D method. The best estimate was found with H method (-0.39 years) in boys, H method (-0.46 years) in boys and girls, H method (-0.52 years) in girls ($p < 0.05$). H method ($R^2 = 0.84$) was found to be more successful for boys and D method was found to be more successful ($R^2 = 0.77$) for girls.

Conclusion: It was observed that the use of only H or D method for age estimation for all children in 8-14 age groups does not give accurate results. There is a need to investigate different methods.

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