

7th Global Dentists and Pediatric Dentistry Annual Meeting

March 31- April 01, 2016 Valencia, Spain

Oral health status in children with Down syndrome: A case-control study

Fethi Maatouk, Rabeb Bel Haj Salah, Amina Bakhrouf and Abdellatif Abid
University of Monastir, Tunisia

Down's syndrome (DS) is a genetic disorder caused by trisomy of chromosome 21. Literature review reported that periodontal disease was the most significant oral health problem observed in children with DS. Studies also showed lower rates of dental caries in these children according to some factors like hypodontia and delayed tooth eruption, bruxism and salivary characteristics. The objectives of our study were to: 1) Determine the oral health conditions of a group of individuals with Down syndrome and to compare them with a group of disabled children and a control group. 2) Compare the salivary parameters (notably the pH) between the 3 groups; 3) Look for a possible relation between the oral affections and the salivary characteristics in DS children. The present study which was conducted in Monastir (TUNISIA), involved 15 children in each group. Main oral health indicators were calculated according to WHO criteria (DMF, CPITN...). All data were analyzed using SPSS 11.0 for Windows and Chi square test was used to compare different percentages with the 5% level of significance. The findings revealed a high prevalence of periodontal affection in DS children (86.6%) while dental caries prevalence was lower in these children who never brush their teeth. The study of salivary pH showed more alkaline saliva in DS children. In conclusion a big effort must be done to prevent and treat prematurely the periodontal affections in children with DS. A preventive approach was very important to provide proper dental education to parents and to improve oral hygiene habits of children with DS by close monitoring and periodic dental check-ups.

fethimaatouk@yahoo.fr

The association between the frontal sinus morphological variations and the cervical vertebral maturation for the assessment of skeletal maturity

Hafiz Taha Mahmood, Attiya Shaikh and Mubassar Fida
The Aga Khan University Hospital, Pakistan

Introduction: The assessment of skeletal maturity is important for planning dento-facial orthopedics or orthognathic surgery for the treatment of different skeletal malocclusions. Cervical vertebral maturation is widely used method to evaluate skeletal maturity of patients undergoing orthodontic treatment. In the past decade, another method is being proposed which is based on frontal sinus morphology. So, the aim of this study is to evaluate the association between frontal sinus morphological variations and cervical vertebral maturation for the assessment of skeletal maturity.

Method: Lateral cephalograms of 252 subjects aged 8-21 years were collected from the dental clinics of AKUH. The sample was divided into six groups based on cervical vertebral maturation stages. The frontal sinus index was calculated by dividing frontal sinus height and width and the cervical vertebral maturation stages were evaluated on the same radiograph. Data were analyzed using SPSS (version 19). Kruskal-Wallis test was applied to compare frontal sinus index at different cervical stages and Post hoc Dunnett t3 test was applied to compare frontal sinus index between adjacent cervical stage intervals in males and females. A p-value of ≤ 0.05 was considered as statistically significant.

Results: The frontal sinus height and width were significantly associated with the individual cervical vertebral maturation stages in males and females. However, frontal sinus index wasn't significantly associated with the individual cervical vertebral maturation stages in males and females.

Conclusion: Frontal sinus index cannot differentiate between pre-pubertal, pubertal and post-pubertal adolescent growth stages therefore; it cannot be used as a reliable maturity indicator.

taha.mahmood@aku.edu