

ABSTRACTS

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detected in the condylectomy/appliance group. However, histomorphometric analyses did not demonstrate regeneration of the condyle in either of the two discectomy groups despite application of a functional appliance in one of the groups.

CONCLUSIONS: The articular disk is crucial in the regeneration of the damaged condyle, suggesting that defect or damage of the articular disk influence mandibular growth and regeneration or repair of the condyle.

213 DENTAL AGE ESTIMATION IN CHILDREN: COMPARISON OF TWO DEMIRJIAN SCORES BASED ON FOUR TEETH

I Galic¹, E Nakaš², A Tiro², V Džemiždic², M Vodanović¹, ¹Department of Dental Anthropology, School of Dental Medicine University of Zagreb, Croatia and ²Department of Orthodontics, School of Dental Medicine University of Sarajevo, Bosnia and Herzegovina

AIM: To test the applicability of the two Demirjian's (1976) self-weighted scores based on four teeth from left side of the mandible in Bosnia and Herzegovina children and to expand age prediction models for this population.

MATERIALS AND METHOD: In cross-sectional, retrospective study, the dental pantomograms (DPTs) of 805 girls and 636 boys, aged between 4 and 15 years, were scored following the two Demirjian scores based on rating one of eight stages (A-H) of calcification of four different teeth from left side of the mandible; PM1, PM2, M1, M2; and I1, PM1, PM2, M2. Dental age was obtained by finding the age at which the 50th percentile value equalled the maturity score. Kappa statistic and intraclass correlation coefficient (ICC) were used for testing intra- and interobserver repeatability of mineralization stages and dental age by assessment of 10 per cent ($N = 144$) of the DPTs. In addition, different regression models were tested for estimation of age as a function of maturity score for both scores and genders, separately.

RESULTS: The mean Cohen kappa values were 0.82 for intra- and 0.81 for inter-observer agreement of mineralization stages. ICCs were 0.980 for intra- and 0.978 for inter-observer repeatability for PM1, PM2, M1, M2 teeth and 0.982 for intra- and 0.981 for inter-observer repeatability for I1, PM1, PM2, M2 teeth. Both scores overestimated the dental age in this sample; the mean overestimation was 0.82 years (SD 0.97) for girls and 0.53 years (SD 0.88) for boys for PM1, PM2, M1, M2 teeth and 1.07 years (SD 0.94) for girls and 0.67 years (SD 0.88) for I1, PM1, PM2, M2 teeth.

214 UNDIAGNOSED ANOREXIA AND BULIMIA IN ORTHODONTIC PRACTICE

P García-Camba¹, M Varela¹, E García-Camba², ¹Unidad de Ortodoncia, Fundación Jiménez Díaz Hospital, Madrid, and ²Hospital de la Princesa, Madrid, Spain

AIM: Extensive damage to the teeth may result from self-induced vomiting, a condition regularly associated with some eating disorders (ED) such as anorexia and bulimia. In the most serious cases, repeated contact with gastric acid can produce severe dental abrasion and rampant caries. Less commonly, facial deformity secondary to salivary-gland swelling is observed. Concerned about their appearance, patients with an ED may seek orthodontic care before medical treatment. The characteristic pattern of dental and oral signs can be an important diagnostic key in ED patients whose surreptitious vomiting is not associated with weight loss.

MATERIALS AND METHOD: Since 2001, screening for dental and oral signs of ED in all patients over 11 years of age has been carried out by postgraduates. The examination protocol includes inspection of the knuckles for calluses produced by the teeth when the fingers are used to induce vomiting. When a previously undiagnosed ED is suspected, the patient is encouraged to seek psychiatric help. Orthodontic treatment is not initiated until significant improvement in vomiting or complete recovery has occurred.

RESULTS: From January 2001 to December 2009, 11 (2 males, 9 females, age range 13 to 42 years) out of 5,028 patients attending for consultation, without a previous diagnosis of an ED, showed dental signs of acid abrasion. Seven accepted referral to a psychiatrist, who diagnosed ED in every case (1 anorexia, 6 bulimia).

CONCLUSION: Orthodontists can be the first to discover ED and consequently must be trained to encourage patients to seek psychiatric help. The role of orthodontists in secondary ED prevention, early diagnosis, and prompt intervention must be emphasized in postgraduate programmes.

215 INCISO-APICAL CURVATURE OF THE TOOTH AND THE RESULTING INFLUENCE OF VERTICAL BRACKET POSITION ON TORQUE EXPRESSION

P García-Camba¹, M Varela¹, M Díaz de Atauri¹, V Thams¹, J Varela², ¹Department of Orthodontics, Fundación Jiménez Díaz Hospital, Madrid and ²Private Practice, Murcia, Spain