

cleft before and after the surgical lip and palate repairs using stereophotogrammetry system.

Methods: The sample consisted of 150 digitized dental casts of children with unilateral: complete cleft lip (UCL) and cleft lip and palate (UCLP). Palates were evaluated at before surgical lip repair (T1), after surgical lip repair (T2), and after surgical palate repair (T3). The following measurements were evaluated: intercanine and intertuberosity distances; anterior and total lengths; cleft and segments areas. Independent t test and Mann-Whitney test were used to verify the changes occurred intergroups, and Paired T test, Wilcoxon test and Repeated-measures ANOVA followed by Tukey test for intragroups ($\alpha = 5\%$).

Results: In UCL children, intercanine, intertuberosity and segments area increased during the stages. In UCLP children, intercanine, anterior length and cleft area reduced after surgical repairs, despite intertuberosity, total length and segments area had grown up. Intergroup analysis, intercanine and intertuberosity were statistically lower in UCLP children.

Conclusions: The surgical lip repair modified the development of the palate evidently in UCLP children. The children with UCLP have more restricted growth of the palate when compared to UCL children.

1957 | Minimally invasive orthodontic treatment in 4-year-old child: A case report

Marina Belfer

Paediatric Dentistry and Orthodontics, Peoples' Friendship University of Russia, Moscow, Russia

Introduction: There is no doubt that the percentage of children with malocclusion has been increasing markedly in recent years. Minimally invasive early orthodontic methods therefore should be utilized to prevent more severe future intervention.

Case Report: A 4-year-old boy presented with a severe deep bite for the treatment in the private dental practice in Moscow, Russia. His history included prolonged breastfeeding, the presence of bad oral habit (thumb sucking), and several visits to paediatric dentists. The toddler had a poor aesthetic appearance. The patient's both parents had Angle Class II division II and were concerned about the same problem with their son. The examination revealed an overbite of 5 mm and an overjet of 1 mm. The treatment was performed only with psychological techniques. The bite ramps were placed on the second upper primary molars to separate between the upper and lower jaw and decrease the overbite. The detailed instruction on the prevention of bad oral habits was given. The patient was followed up every 3 months.

Discussion: During the following 2.5 years, the occlusion has improved to normal and stable, and no malocclusion was

detected. The bite ramps unblocked the TMJs so that mandible could grow naturally. The parents and the child are satisfied with the longitudinal functional and aesthetic results.

Conclusions: The early minimally invasive orthodontic treatment due to the challenges of modern society should be an important objective.

905 | The impact of molar incisor hypomineralization in children's dental development

Siti Khadijah Binti Shahnon¹; Yunita Dewi Ardini²; Susi Sukmasari²

¹Dental Department, Ministry of Health Malaysia, Kuantan, Pahang, Malaysia; ²Paediatric Dentistry and Dental Public Health, International Islamic University Malaysia, Kuantan, Pahang, Malaysia

Background: Dental development (DD) determination is required in various clinical and scientific disciplines such as paediatric dentistry, orthodontics and forensic dentistry.

The aim of this research was to investigate the impact of molar-incisor hypomineralization (MIH) in dental development of Malay children with compared to age and gender matched controls.

Methods: A matched-pair case control study was conducted on children aged 7 to 13 attending Polyclinic, Kulliyah of Dentistry, International Islamic University Malaysia (IIUM). MIH was determined based on criteria from EAPD seminar, 2003. Dental development was determined using dental development score from Willem's method on orthopantomogram. Intra and Inter-examiner reliability was tested with Kappa statistic; Intra and inter examiner reliability were 0.988 and 0.848 respectively. This research was approved by the IIUM Research Ethic Committee ID No: IREC 264.

Results: A total of 24 children (13 girls, 11 boys) compared with 24 control groups, case-matched for gender and age. The mean of DD of MIH children were 9.48 ± 2 , while control children were 8.93 ± 2 . Chronological age (CA) of children with MIH and the control were 8.89 ± 2 and 8.95 ± 2 respectively. The paired-sample-t-test analysis revealed that there was true mean difference in dental development between children with MIH and control with significance was p

Conclusion: Dental development in children with MIH is higher compared to control group. These findings have implications to optimize management of dental growth and development in children with MIH.