
Conventional cephalometric soft tissue (CST) measures give a limited description of the complexity of the facial profile. This study examined the relationship among CST measures, muscle, and dentoalveolar measurements as indices of facial appearance. A mixed design was used to compare CST, orthodontic, and surgical outcomes. A total of 30 patients were included in the study. All patients had undergone mandibular advancement surgery. Conventional cephalometric soft tissue (CST) measures indicated the improvement of the profile, and the surgical outcome was evaluated by objective measurements. The study was funded by the American Society of Orthodontists Foundation.

2080 Signs of TM disorders following Class II early treatment: Early results. M. KEELING, S. BATES, S. MCGCRAW, J. G. CARBONE.

Signs of TM disorders (TM sounds, muscle/joint tenderness, range of motion) were determined in grade school children enrolled in a randomized clinical trial (RCT). The RCT followed 220 children from age 8 to age 12 and examined 108 control and 112 treatment children. In the present study, 30 children were evaluated in 26 children using Kappa (K) statistics. Reliability of TM sounds, muscle/joint tenderness, and range of motion was found to be high. Signs of TM disorders were significantly associated with a prior history of acne and with a family history of TM disorders.

2081 REVERSE HAIRDRAPING TREATMENT IN MIXED DENTITION FOR GIRLS WITH UCLP L. S. SGD.

Aim: To study the skeletal and dental changes in the vertical direction due to treatment with reverse hair draping in Southern Chinese girls with complete unilateral cleft lip and palate (UCLP).

Materials and methods: A total of 10 girls with UCLP were treated by reverse hair draping. The mean age at the start of treatment was 6 years old, and the mean duration of treatment was 18 months.

Results: The results showed that reverse hair draping could improve the skeletal and dental changes in the vertical direction.

Conclusions: Reverse hair draping treatment for girls with complete unilateral cleft lip and palate during the mixed dentition stage produced significant skeletal changes in the mandible plane, and the facial profile showed improvement in the vertical plane. The results were significant and indicated that reverse hair draping could be an effective treatment for this group of patients.

2082 A Serial Tomographic Study of Limited Lip Laceration in Eight Children M. DAVVIDITSAKI, D. MCDONALD, J. S. MCQUEEN, J. S. MCQUEEN.

Tomographic studies of the mandible were performed in eight children with lip laceration. The children were aged between 2 and 12 years. The films were taken at baseline and after treatment. The treatment involved the surgical closure of the lip laceration. The study showed that the surgical closure resulted in significant bone changes in the mandible.

2083 DM MCINNIS, WT LEA, SJ LINDAUEUR (Virginia Commonwealth University, Medical College of Virginia, Richmond, VA, USA).

Currently, all clinical information gathered on the effects of lip laceration (LB) therapy have been derived from cephalometric radiographs and/or study models. The conclusions arrived at using these diagnostic tools exclusively have been widely variable. This prospective clinical study was undertaken in order to quantify specific tooth movements related to six months of non-surgical LB therapy. Eighteen mixed-aged patients with complete mandibular primary molars and 3-4-8a of mandibular closure were randomly placed in either the treatment or observation/non-treatment group. Those in the treatment group underwent six months of mandibular advancement therapy, whereas those in the observation group remained untreated. The study showed that non-surgical LB therapy resulted in significant bone changes in the mandible.

2084 Changes in Soft Tissue Profile Following Extraction and Nonextraction Therapy. B.J. GONZALEZ, R.F. CERRI, R. ALEXANDER, P.H. BUSCHMANN (Baylor College of Dentistry, Dallas, Texas, USA).

This study compares the effects of orthodontic therapy on the soft tissue profile in orthodontic and non-orthodontic patients. The sample includes 38 extraction and 38 non-extraction cases (30 males and 8 females). The patients were selected based on crowding, age, arch form, and inclination of the tooth. The extraction group was obtained primarily from patients who had undergone extraction for orthodontic reasons. The non-extraction group was obtained primarily from patients who had undergone orthodontic treatment without extraction. The study showed that extraction therapy resulted in significant bone changes in the soft tissue profile, while non-extraction therapy did not.


Previous studies have shown that changes in cephalometric landmarks, point "A" can result from maxillary skeletal movement, and maxillary advancement surgery. This study was performed to determine the relative contribution of skeletal movement and localized remodeling to "A" point changes resulting from treatment with maxillary protrusion (MP) and patient selected treatment (PST). A total of 40 patients were included in the study. The study showed that changes in point "A" were due to both maxillary skeletal movement and localized remodeling.

2086 A Prospective Study of Apical Root Resorption in Orthodontic Patients. B.W. BECK, R. KELM, E. EARRIS (Department of Orthodontics, University of Tennessee, Memphis). Extensive studies of how orthodontic treatment causes external apical root resorption (EARR) extend back to early in this century, but virtually all studies have been retrospective. Intent of this ongoing project is to prospectively monitor presence and severity of EARR from initial diagnostick record through comprehensive treatment and the follow-up interval of the fourth year. The hypothesis is that EARR is more common in the incisors and premolars and less common in the molars. Several prior studies by our group indicate that upper incisor roots lose about 2 mm during the course of orthodontic treatment. In contrast, lower incisor roots lose about 1 mm. Data from this study showed that the incidence of EARR was significantly lower in the lower incisors compared to the upper incisors. This suggests that EARR may be more common in the maxillary incisors than in the mandibular incisors. EARR is slower in its early stage compared to the later stages of orthodontic treatment. This study also showed that the incidence of EARR is higher in the incisors than in the premolars and molars. The conclusions of this study are supported by the data from the retrospective and prospective studies.