

**Presentations**

**Longitudinal Craniofacial Growth in untreated subjects and Class II growth modification**

Treatment associated changes and its impact on the maxillary and the mandibular growth are of great interest to the orthodontist in the correction of Class II malocclusion in the growing subjects. It has been known that the growth pattern, amount and direction of growth, of the individual are one of the profound factors for the correction of the skeletal discrepancy of the inter-jaw relationship. One of the most heated controversies in orthodontics concerns the role of early treatment in the correction of Class II malocclusions. This presentation will describe the clinical outcomes of orthodontic intervention using the comprehensive mixed dentition treatment modality. The discussion will focus on comparing the effectiveness of early treatment of patients with moderate- severe Class II malocclusions to changes observed in untreated Class II and late single-phase Class II treatment samples. Some common characteristics of patients who presented successful early Class II correction, and other benefits and limitations will be discussed.

**Rapid Maxillary Expansion for Obstructive Sleep Apnea patients with narrow maxilla**

Rapid palatal expansion (RPE) has been widely used in correcting maxillary transverse deficiency by separating the two halves of the maxilla at the midpalatal suture to widen the maxillary basal bone in children and adolescents. various types of the Micro-implant Assisted RPE (MARPE) were introduced to obtain greater skeletal expansion and to minimize dental effects. We evaluated skeletal and dental effects immediately after the completion of expansion using three different types of expanders— a traditional tooth-anchored maxillary expander (TAME), bone-anchored maxillary expander (BAME) and tooth-bone-anchored expander (MSE) using CBCT. Overall, the MSE group showed much greater skeletal changes than the TAME and BAME groups, especially, at the nasal floor, maxillary base, and palatal suture. About 72% -78% of suture opening was at PNS, which indicates slightly more opening anteriorly than posteriorly; however, it was relatively parallel in nature than anticipated.

Since expansion of the upper dental arch using RME would increase the space available for the soft tissue inside the oral cavity, including the tongue, the use of RME is reasonable for the treatment of pediatric patients with obstructive sleep apnea (OSA) and/or may have preventive role of future OSA development. In this presentation, a newly introduced distraction Osteogenesis Maxillary Expansion (DOE) for adult obstructive sleep apnea patients with narrow maxilla and nasal floor will be evaluated.