Many orthodontists continue to avoid early intervention because they believe the condition is caused by overgrowth of the mandible, and they do not believe it is possible to control mandibular growth. The orthodontic care of a patient in skeletal Class III malocclusion often presents a dilemma to an orthodontist: whether to treat or to follow the facial growth pattern until adulthood, when orthognathic surgery can be done.

This presentation by the Double Facebow Appliance demonstrates very successful management of severe Class III malocclusions, which were considered extremely difficult by either conventional extraoral appliances or edgewise appliances, or both. The purpose of this presentation is to show a treatment approach that permits a rapid resolution of certain Class III malocclusions, the design and construction of a Double Facebow Appliance (D.F.A.), and the results of its use on some patients.

Intentional ankylosis와 Distraction osteogenesis를 동용한 상악 전방 견인술

Bilingual arch, RME (rapid maxillary expansion) 등 전장교통의 구강 내 부착을 위한 다양한 구내 보강장치가 소개되었으나 정형의 치아를 통하여 전달되므로, 술자가 원하는 상악의 전방 이동보다는 원하지 않은 치아의 조 정 이동이 발생될 수 있다.

본고에서는 이와같은 부작용을 감소시키는 방안으로 상악 유관절을 의도적으로 유착시켜(intentional or therapeutic ankylosis) 상악 치열군의 고정을 보강하는 임상실험을 소개함과 동시에, 정형외과 영역에서 bone lengthening을 위해 1950년 Ilizarov에 의해 소개된 이래 최근 치과 영역에서는 주로 하악 후퇴증(mandibular hypoplasia)의 치료에 이용된 distraction osteogenesis술을 상악을 열성장 치료에 동용하는 방법을 소개하기로 한다.

Orthodontic Considerations in Maxillary Distraction Osteogenesis using RED System

Patients with repaired oro-facial clefts can have impairment of maxillary growth resulting in secondary deformities of the jaws and malocclusion. In such patients, orthognathic surgery with or without bone graft is the procedure of choice for reestablishing facial balance and occlusion. The maxilla in these patients is often difficult to mobilize and retain because of scar tissues resulting from previous operations. The possibility of
relapse due to scarring, soft tissue resistance and graft resorption may change the final long term treatment outcome. The application of distraction osteogenesis is becoming a viable option for the correction of severe maxillary hypoplasia. The application of forces to advance the maxilla after LeFort I osteotomy has recently been reported. The procedure of maxillary distraction utilizing Rigid External Distraction (RED) System will be presented as well as biomechanical considerations for the controlled advancement of dentomaxillary complex.

Importance of Incisor Inclination Indicator in Lingual Treatment Mechanics

In most orthodontic cases, labial or lingual, the space closure requires translation of the anterior teeth while maintaining coincident occlusal plane. The force system necessary to achieve such movement requires the application of appropriate retraction and intrusion forces to the anterior teeth. When the same amount of force is applied to the incisors in labial and lingual systems and the intrusion force equals the retraction force, the resultant force vector is pointed close to the center of resistance of the incisors in a labial system but not in a lingual system. The net force vector in a lingual system will produce a larger lingual tipping moment of the incisors than in a labial system. Since lingual mechanics shows a greater tendency of lingual inclination, more care must be taken compared to the labial technique.

One way to control or eliminate tipping is to decrease the magnitude of the retraction force or increase the magnitude of the intrusive force, and to apply the resultant force vector closer to the center of resistance. Another way is to create a second counterbalancing moment opposite in direction to the first one. A twisted rectangular or square archwire fitting into a rectangular or square bracket slot on the tooth can generate the counterbalancing moment necessary to control tipping. However, third order bends are not easier to place in