

특강 I

The newly developed orthodontic and orthopedic techniques using the principals of expansion/distraction osteogenesis

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In these years, we have developed three new techniques by using the principals of expansion or distraction osteogenesis to treat various malocclusion and maxillary deformities. The first is rapid canine retraction for rapidly retracting canine in 3 to 4 weeks. The second is a modified technique for rapid maxillary protraction in cleft or Class III patients with maxillary deficiency. The third is interdental distraction osteogenesis for approximating a wide alveolar cleft in unilateral or bilateral cleft patients.

Part I: Rapid canine retraction

This technique is based on the principals of rapid maxillary expansion in which the intermaxillary suture is rapidly stretched to induce suture osteogenesis. The periodontal ligament is a soft tissue between tooth and alveolus. It is analogized as a dentoalveolar suture and can be rapidly stretched. The rapid canine retraction is the rapid stretch of a periodontal ligament to induce periodontal osteogenesis. This technique is indicated in adult cases such as severe anterior crowding, maxillary dentoalveolar protrusion, bimaxillary dentoalveolar protrusion, and mild Class III. It corrects these malocclusions in a short period of time. The rationales, history, clinical procedures, and applications of rapid canine retraction, and long-term results of the periodontal support and pulpal vitality will be presented.

Part II: Rapid maxillary protraction: Sutural expansion/distraction osteogenesis

The modified technique of rapid maxillary protraction is a technique by using a special designed expander to disarticulate the maxillary and then using a pair of intraoral protraction springs for maxillary protraction. This technique is based on the principals of rapid maxillary expansion as well. It is called sutural expansion/distraction osteogenesis. In this technique, the intermaxillary and circumaxillary sutures are disarticulated by repeat expansion and constriction of the expander for 3 months. And then a pair of intraoral, tooth-borne protraction springs with 1000 to 1200 gram of force is applied in the second and third months to rapidly stretch the sutures. The active treatment period is 3 months and the maintenance is another 3 months. The mean value for the anterior displacement of the maxilla at A point is 5.2 mm in 3 months. Three clinical studies will be presented to illustrate the rationale, clinical procedures, and results of this special technique.

Part III: Interdental distraction osteogenesis

The interdental distraction osteogenesis (IDO) is a technique of creating a segment of new alveolar bone and attached gingiva between teeth. It is a bifocal distraction osteogenesis. Interdental osteotomy is performed between teeth, and the osteotomized maxillary segment is then distracted and transported to approximate the alveolar cleft by using a tooth-borne or bone-borne intraoral distraction device. The need of extensive alveolar bone grafting therefore could be eliminated. The new edentulous alveolus between teeth is then used for relieve dental crowding in short period of time. The surgical design, distraction devices, clinical orthodontic procedures before and after distraction, and the results will be presented.

특강 II

Early treatment of nonskeletal problems

: Diagnosis, sensible treatment options and outcomes

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Abstract: This presentation will begin by observing the epidemiology of malocclusions and the treatment options that these data appear to suggest. This will be followed by a review of the data on diagnostic methods and our abilities as practitioners to prescribe treatment. Then, the presentation will focus on special problems that might benefit from early dental intervention and the biomechanical and treatment issues that come to bear on these situations, which influence the probability of success. Patient treatment materials will be used to illustrate this overview.

특강 III

교정학회의 현재와 미래

이준규 부회장
이준규 치과

1959년 김귀선 초대회장을 중심으로 창설된 우리 대한 치과 교정학회는 올해로 42년의 역사를 갖게 되었고 양적으로나 질적으로나 엄청난 규모로 발전하였다. 총 회원수에 있어서 2500여명을 망라하고 있으며 교정의를 배출하는 수련기관도 그 양과 질에서 현격한 발전을 이루었다. 또한 많은 회원들이 미국, 일본 등에서 교정학을 연마하고 돌