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Quantitative evaluation of craniofacial changes with Jasper Jumper therapy

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ABSTRACT

Although the Jasper Jumper is becoming a widely accepted orthodontic appliance, no quantitative guidelines exist for therapy. The purpose of this investigation was to describe the orthopedic and orthodontic changes associated with Jasper Jumper therapy. A sample of 31 consecutively treated Class II patients was collected from three orthodontic practitioners who were using the same procedures and methods. Lateral cephalograms were taken immediately before appliance placement and immediately after appliance removal (mean interval of 0.4 years). The sample was case matched to untreated controls based on age, sex, and mandibular plane angle. The cephalograms were superimposed using anterior cranial base, maxillary, and mandibular reference structures to distinguish between growth/displacement and tooth movement. The results show that the majority of Class II correction was due to dental, rather than skeletal change. The maxilla underwent significant posterior displacement. The maxillary incisors retroclined and the maxillary molars tipped distally. Clockwise or backwards rotation was evident for the mandible. The mandibular incisors proclined significantly and the mandibular molars translated and tipped mesially.

Jasper Jumper therapy is a valuable procedure for the correction of Class II dental malocclusions. Like all other treatment modalities, there are both indications and contraindications for its use.

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