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Cephalometric Changes of Patient with Class II Division 1 [Malocclusion] Post Orthodontic Treatment with Growth Stimulation: A Case Report

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Abstract : An aesthetic facial profile is one of the goals in Orthodontics treatment. However, this is not easily achieved, especially in patients with Class II Division 1 malocclusion who have the clinical characteristics of convex profile and significant skeletal discrepancy due to mandibular growth deficiency. Malocclusion with skeletal problems require proper treatment timing for growth stimulation, and it must be done in early age and in need of good cooperation from the patient. If this is not done and the patient has passed the growth period, the ideal treatment is orthognathic surgery which is more complicated and more painful. The growth stimulation of skeletal malocclusion requires a careful cephalometric evaluation ranging from diagnosis to determine the parts that require stimulation to post-treatment evaluation to see the success achieved through changes in the measurement of the skeletal parameters shown in the cephalometric analysis. This case report aims to describe skeletal changes cephalometrically that were achieved through orthodontic treatment in growing period. Material and method: Lateral Cephalograms, pre-treatment, and post-treatment of cases of Class II Division 1 malocclusion is selected from a collection of cephalometric radiographic in a private clinic. The Cephalogram is then traced and measured for the skeletal parameters. The result is noted as skeletal condition data of pre-treatment and post-treatment. Furthermore, superimposition is done to see the changes achieved. The results show that growth stimulation through orthodontic treatment can solve the skeletal problem of Class II Division 1 malocclusion and the skeletal changes that occur can be verified through cephalometric analysis. The skeletal changes have an impact on the improvement of patient's facial profile. To sum up, the treatment timing on a skeletal malocclusion is very important to obtain satisfactory results for the improvement of the aesthetic facial profile, and skeletal changes can be verified through cephalometric evaluation of pre- and post-treatment.

Keywords : cephalometric evaluation, class II division 1 malocclusion, growth stimulation, skeletal changes, skeletal problems
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