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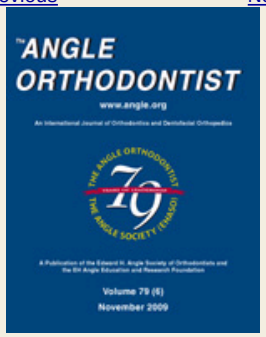

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Original Articles

Long-Term Outcomes of Class III Treatment with Mandibular Cervical Headgear Followed by Fixed Appliances

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Abstract

Objective: To evaluate the stability of the outcomes of mandibular cervical headgear (MCH) and fixed appliance–treated Class III patients at a long-term posttreatment (5 years) observation, compared with well-matched untreated Class III controls, following a previous report on the short-term outcomes of this protocol.

Materials and Methods: The treated group consisted of 20 patients with dentoskeletal Class III malocclusions treated with a two-phase protocol consisting of MCH and fixed appliances, while the control group comprised 18 untreated subjects with similar dentoskeletal Class III malocclusion. Lateral cephalograms of both patients and controls were analyzed at two time points: posttreatment (PT), after two-phase treatment; and long term (LT). All patients were at a postpubertal stage of skeletal maturity at PT, and they showed CS6 at LT, thus revealing completion of pubertal craniofacial growth.

Results: In the long term, the treatment group showed significantly smaller values for mandibular length (Co-Gn), SNB angle, maxillomandibular differential, and molar relation. When compared with the controls, the treated patients exhibited also greater values for ANB angle, Wits appraisal, and overjet at LT. No significant difference between the two groups was found for the changes occurring from PT to LT.

Conclusions: Favorable dentoskeletal outcomes induced by MCH and fixed appliances remained stable in the long term; untreated Class III malocclusion did not show any tendency toward self-improvement during the postpubertal interval.

Keywords: Class III malocclusion, Mandibular headgear, Long-term assessment, Cephalometrics

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