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Growth modification versus surgery for severe Class II malocclusions

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Introduction:

Growth modification (GM) of severe Class II malocclusions in growing patients may serve to reduce or even eliminate the need for orthognathic surgery.

Aim of the study:

To evaluate the clinical outcomes of a growth modification treatment protocol in patients with severe Class II malocclusions who refused a surgical option.

Subjects and methods:

Fourteen skeletal Class II retrognathic patients (ANB= 5° - 10°) with severely enlarged overjets (8mm – 10mm) and proclined upper incisors were treated with a van Beek HGA followed by full-fixed appliances and matched with non-growing patients with similar growth patterns who were treated with full-fixed orthodontics and surgery.

Results:

GM varied from 4 – 11 months. Molar relationship, overjet, overbite and lip competence were all reduced to within normal limits. Total treatment time varied from 19 – 30 months (x= 24). Patients with GM were deemed not to require surgery after Phase 1 or, were satisfied with the aesthetics and opted not to pursue that option following GM. Patients in the surgical control group often did not achieve the aesthetics and function attained in the GM group.

Conclusions:

Despite current RCT data, GM seems to present a viable alternative to surgery in selected, compliant, growing Class II patients, even in severe dysplasias, within a 2-year time frame. Surgery should not be considered as a *sine qua non* for every Class II malocclusion, and individual variation and patient/parent concerns and preferences must be taken into account in clinical decision-making by the Orthodontist