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Associations between severity of dentofacial deformity and motivation for orthodontic-orthognathic surgery treatment

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ABSTRACT

The successful outcome of orthognathic surgery is related to patient satisfaction and motivation. The aim of this retrospective study was to analyze the association between 1) severity of dentofacial deformity derived from cephalometric measures and 2) patient motivation for treatment. The initial cephalograms of 142 patients aged 16 years or older from the Dentofacial Program of the University of Michigan were traced and digitized. Inclusion criteria were established by assigning ANB 4° to 15° to define severe skeletal Class II (n=65) and ANB -15° to -4° to define severe skeletal Class III (n=20). Motivation for orthodontics and surgery was derived from clinician administered forms scaled 1–10 with Low (1–5) and High (8–10).

The cephalometric measure ANB was significant ($p=0.02$) for high/low motivation for orthodontic treatment using Student's t test. No other cephalometric measures were significant for high/low motivation for orthodontics or surgery using Student's t test. Class II patients were significantly ($p=0.014$) more motivated than Class III patients for orthodontic treatment. No significant difference was found for motivation for surgery between skeletal Class II and skeletal Class III patients.

Patients with severe sagittal Class II deformities had higher motivation for orthodontics than surgery. The cephalometric measure, ANB, defining severe skeletal Class II and Class III patients did predict motivation level for orthodontics. None of the other 18 cephalometric measures were predictive of patient motivation for either orthodontics or surgery.

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