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Oropharyngeal airway dimensions and functional-orthopedic treatment in skeletal Class II cases

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ABSTRACT

Mandibular deficiency may be a factor in reduced oropharyngeal airway (OAW) dimensions and related impaired respiratory function. The purpose of this study was to evaluate the use of functional-orthopedic devices in increasing OAW dimensions in children with Class II skeletal patterns ($ANB > 4$) and clinically deficient mandibles. Comparisons were made between two groups, one comprising 26 treated patients and the other comprising 15 controls. Student's *t*-tests, paired *t*-tests, discriminant analyses, and Pearson's *r*-correlation coefficients were performed to evaluate group differences and to search for characteristics that might suggest which patients would be better candidates for significant increase in OAW dimensions. Compared with controls, OAW dimensions increased significantly in treated patients, especially those with sagittally smaller and more retrognathic maxillomandibular complexes and smaller OAW dimensions.

KEY WORDS: Skeletal Class II, Oropharyngeal airway, Functional-orthopedic treatment.

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