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Randomized Controlled Study of an Oral Jaw-Positioning Appliance for the Treatment of Obstructive Sleep Apnea in Children with Malocclusion

MARIA P. VILLA*,
EDOARDO BERNKOPF**, JACOPO PAGANI*, VANNA BROIA**, MARILISA MONTESANO*,
and ROBERTO RONCHETTI*

*Department of
Pediatrics, II Faculty S.Andrea, University of Rome La Sapienza, Rome, Italy

**Consultant orthodontist edber@studiober.com

To evaluate the clinical usefulness and tolerability of an oral jaw-positioning appliance in the treatment of obstructive sleep apnea syndrome in children, we studied 32 patients (mean age, 7.1±2.6yr; 20 males) with symptoms of obstructive sleep apnea, malocclusion, and a baseline apnea index >1event/h. A group of 19subjects was randomly assigned to a 6-mo trial of an oral appliance; the remainder acted as control subjects. At baseline and after the trial all patients underwent physical examination, a standard polysomnography, and orthodontic assessment. A modified version of the Brouillette questionnaire related to obstructive sleep apnea symptoms was administered to parents before and after the trial and a clinical score was calculated. Of the 32subjects enrolled, 4treated subjects and 5 control subjects were lost to follow-up. Polysomnography after the trial showed that treated subjects all had significantly lower apnea index ($p < 0.001$) and hypopnea index values ($p < 0.001$) than before the trial, whereas in untreated control subjects these values remained almost unchanged. Clinical assessment before and after treatment showed that in 7of the 14subjects (50%) the oral appliance had reduced (a fall of at least 2points in the respiratory score) and in 7 had resolved the main respiratory symptoms, whereas untreated patients continued to have symptoms. In conclusion, treatment of obstructive sleep apnea syndrome with an oral appliance in children with malocclusion is effective and well tolerated.

**SI TRATTA DEL PRIMO LAVORO AL MONDO CHE DIMOSTRA L'EFFICACIA DELL'APPROCCIO
OCCLUSALE NELL'OSAS IN ETA' PEDIATRICA,
ED E' L'UNICO RITENUTO PROBANTE DALLA REVISIONE COCHRANE SULL'ARGOMENTO
IL DISPOSITIVO IMPIEGATO E' LA PLACCA DI BERNKOPF**

Il full text può essere richiesto all'autore www.studiober.com edber@studiober.com