



CFAO GRADUATE STUDENT POSTERBOARD ABSTRACTS

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Comparative study of short-term effectiveness of mandibular advancement splint titrable vs. active in the treatment of obstructive sleep apnea syndrome in adults

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Summary of the research project:

Obstructive sleep apnea syndrome (OSAS) is a common disease which disrupts the architecture and quality of sleep. The consequences of OSAS are multiple and constitute an important public health issue. There are many therapeutic modalities, the main ones being continuous positive airway pressure therapy (CPAP) or mandibular advancement splint (MAS). The latter have gained tremendous popularity recently. As treatment with CPAP remains the gold-standard for severe OSAS, some patients are unable to use it (refusal, intolerance). In these cases, MAS may be used to improve symptoms.

The main objective of this study is to compare the effectiveness of an active MAS (Somnyx) to a traditional titrable MAS (SomnoDent) in a routine care environment in severe OSAS adult patients who have refused or failed to use CPAP. An active MAS is a monobloc appliance which has the added benefit of stimulating a motor response to ensure airway patency.

Patients with OSAS are referred by their sleep physician. Then each patient undergoes an ambulatory polysomnography (PSG) to evaluate sleep-disordered breathing, and is also seen by a dentist who evaluates the eligibility to receive a MAS. Once included in the study, each patient is fitted with a MAS and complete sleep-related questionnaires. After a 3 to 5 month period of use, a follow-up is performed, which includes a final PSG, questionnaires on sleep and side effects, and a dental visit.

Results are based on the overall response rate comparing the two appliances which include the apnea-hypopnea index (AHI), sleepiness and compliance.

Preliminary results suggest a similar effectiveness between active MAS and conventional titrable MAS.