

Sleep-related breathing disorders

Usage of mandibular advancement appliance for obstructive sleep apnea treatment

*J. Kostrzewa-Janicka¹, P. Śliwiński², M. Wojda¹, P. Jurkowski¹

¹Medical University of Warsaw, Department of Prosthodontics (Warsaw, Poland)

²Institute of Tuberculosis and Lung Diseases, IV Clinic of Lung Diseases (Warsaw, Poland)

The combination of abnormal anatomy and physiology of upper airway can produce repetitive narrowing during sleep induce obstructive sleep apnea (OSA). Treatment of sleep-disordered breathing can be divided into lifestyle modification, upper airway surgery, continuous positive airway pressure (CPAP) and oral appliances usage. The selection the proper treatment for patients is after clinical and instrumental examination. The indications for oral appliance usage are snoring, mild sleep apnea and patients who do not tolerate CPAP well.

The type and number of specific oral appliances are still growing. The mandibular advancement appliance (MAA) is the most common type of dental appliance in use today. It protrudes the mandible forward, thus preventing or minimizing upper airway collapse during sleep.

It is observed the significant heterogeneity between patients in response to treatment, which could be explained by severity of sleep apnea at baseline and duration of treatment. In patients with mild OSA in some trials were observed similar treatment effect after usage CPAP and MAA. In patients with severe OSA, CPAP remains the treatment of first choice. For individuals who are intolerant of CPAP, treatment with MAA may also be effective compared with no treatment.