SLEEP-RELATED BREATHING DISORDERS AND BRUXISM

Jolanta Kostrzewa-Janicka, Piotr Jurkowski, Elżbieta Mierzwińska-Nastalska

Department of Prosthodontics, Medical University of Warsaw, ul. Nowogrodzka 59, pavillion.XIa, 02-006 Warszawa, Poland, jolanta.kostrzewa-janicka@wum.edu.pl

Sleep-related breathing disorders refer to a spectrum of breathing anomalies, such as apnea/hypopnea and desaturation events, mainly from peripheral causes. Sleep disturbance characterized by repeated episodes of obstruction of the upper airways give the picture of obstructive sleep apnea syndrome (OSAS), which is the major health problem with numerous of pathophysiological consequences. Sleep-related breathing disorders are strongly related to arousal episodes.

The micro-arousals occurring during sleep are considered to be the main causal factor for night jaw-closing muscles activation called bruxism, which is characterized by clenching and grinding of the teeth and/or by bracing or thrusting of the mandible. It is indicated that the causes of bruxism are multifactorial, mostly central. Among central factors there are secretion disorders of central nervous system neurotransmitters and basal ganglia disorders. Recently, is started to treat sleep bruxism (SB) as a physiological phenomenon occurring in parts of the population.

The analysis of the outcomes of chosen items was performed to evaluate the relationships between OSAS and SB. It is reported that the frequencies of apnea and clenching of the teeth are positively correlated in patients with OSAS but clinical findings suggest that further studies are needed to clarify pathophysiology and to develop the treatment approach in patients with concomitant SB and OSAS.