

THE INTERFACE BETWEEN GASTROESOPHAGEAL REFLUX DISEASE AND SLEEP BRUXISM: CURRENT EVIDENCE

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RESUMO

ABSTRACT Introduction: GERD (Gastroesophageal Reflux Disease) is a condition involving the retrograde movement of gastric contents into the esophagus and, in some cases, beyond the upper esophageal sphincter, potentially affecting structures of the upper airways and digestive tract, such as the pharynx, larynx, and oral cavity. Sleep bruxism (SB) is defined as masticatory muscle activity during sleep, characterized as rhythmic (phasic) or non-rhythmic (tonic). These two conditions (GERD and SB) have received particular interest from dental professionals because, when they occur simultaneously, they can have a synergistic effect, aggravating damage to the teeth and compromising the structures of the stomatognathic system.

Objectives: This study aimed to analyze the current evidence of the relationship between sleep bruxism and gastroesophageal reflux disease. **Materials and Methods:** A narrative literature review was conducted based on studies published in the PubMed database over the last 4 years. The search was performed using the descriptors "sleep bruxism" and "gastroesophageal reflux disease". Original articles, clinical trials, systematic reviews, meta-analyses, and randomized controlled trials with a direct approach to the topic were included. **Results:** Some recent studies show an association between salivary gland dysfunction (SB) and GERD, with a higher prevalence of SB in individuals with GERD, due to the protective role that SB may play in mitigating the risk of intrinsic chemical wear of teeth through stimulation of the salivary glands. This is because saliva is one of the most important protective factors against dental erosion due to its buffering capacity, remineralization potential, and role in the formation of the acquired pellicle of dental enamel. Furthermore, both conditions (SB and GERD) are linked to microarousals and sleep fragmentation. This direct relationship between SB, GERD, and the frequency of microarousals has been questioned, with sleep architecture appearing to play a role in modulating this interaction. Although many studies demonstrate an association between SB and GERD, little is known about the possible pathophysiological mechanisms linking these two clinical conditions. **Conclusion:** The pathophysiological mechanisms that explain the association between BS and GERD are not yet fully elucidated, and further studies investigating this interaction in more detail are needed. A better understanding of the interface between these conditions is fundamental for the development of more effective and interdisciplinary clinical approaches.

Palavras-chave: Gastroesophageal Reflux Sleep Bruxism Stomatognathic System Sleep Fragmentation.