

BEYOND SARCOPENIA: DRUG-INDUCED OROFACIAL PAIN AS A MODULATING FACTOR OF BITE FORCE IN THE ELDERLY - A LITERATURE REVIEW

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RESUMO

ABSTRACT Introduction: Sarcopenia is a progressive condition characterized by the loss of muscle mass, strength, and function, associated with reduced mobility. Despite its clinical relevance, diagnosis still presents limitations, with late identification of the disease. In this context, interest in early functional markers is growing. Masticatory function, especially maximum bite force (MBF), has been proposed as an indicator of systemic muscle health. Associated with this, clinical factors such as orofacial pain and temporomandibular disorders (TMD) can directly interfere with masticatory function. Based on this premise, masticatory muscle pain is associated with neuromuscular alterations and reduced bite force, since mandibular limitations and muscle alterations compromise stomatognathic functions. The influence of medications is also noteworthy, since drug-induced oral alterations are associated with orofacial pain and can impair chewing and swallowing. Objectives: To analyze the relationship between masticatory function and sarcopenia in elderly individuals, considering the influence of drug-induced orofacial pain as an associated factor. Materials and Methods: This is an integrative literature review, with studies published between 2021 and 2025, selected from the PubMed and SciELO databases, using the descriptors "sarcopenia", "bite force", "chewing" and "elderly". In addition, some older studies were included due to a lack of articles on the subject. Results: Preserved masticatory function is associated with a lower prevalence of sarcopenia and better nutritional status. Reduced maximum bite force compromises masticatory efficiency, contributing to malnutrition and frailty. Decreased occlusal force with aging is related to atrophy of the masticatory muscles and functional decline, with masticatory musculature being a relevant systemic marker. Additionally, orofacial pain has a high prevalence and significant impact on quality of life, being associated with masticatory pain and functional alterations. Evidence indicates that pain can reduce bite force and alter muscle function, especially in individuals with TMD (temporomandibular disorders). Direct oral alterations include hyposalivation causing xerostomia, usually induced by drugs acting on the central nervous system, which also play a relevant role, as they can interfere with pain modulation and the autonomic function of the salivary glands, hindering chewing, swallowing, and food intake. Recent studies demonstrate an association between drug-induced xerostomia and orofacial pain, suggesting that medications can influence both salivation and pain modulation, reinforcing the importance of an integrated approach to solving the condition. Therefore, these factors can negatively impact maximum bite force and masticatory function. Conclusion: Masticatory function, especially maximum bite force, presents itself as a promising functional marker of sarcopenia in the elderly. Orofacial pain and the effects of medications, such as xerostomia and hyposalivation, can negatively interfere with mastication and bite force. An interdisciplinary approach is essential for early screening and appropriate clinical management, and longitudinal studies are needed for a better understanding of these relationships.

Palavras-chave: Sarcopenia; Chewing; Bite Force; Orofacial Pain; Elderly.