Headache Medicine

Primary headaches: analysis of comorbidities associated with tension-type headaches

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Introduction
Headaches are any painful process of the nervous system that reaches a certain cephalic segment. According to their level of alteration, headaches can be classified into primary or secondary; these with disorders at the structural level, and those, at the level of neurotransmitters. Among the primary headaches, tension-type headaches are one of the most prevalent. Approximately 1.89 billion people worldwide are affected by this condition. It is also known that this fact is related to different comorbidities of people suffering from such headaches, directly impacting their quality of life. In this sense, being this study relevant, because it addresses a subject very present in society, its justification is given by the intention of better understanding how tension-type headaches can be related to the different comorbidities of patients affected by this condition.

Objective
To analyze the comorbidities associated with tension-type headaches.

Methods
This is an integrative review based on research in the MEDLINE, EMBASE, LILACS and SciELO databases, using the descriptors "Headache Disorders, Primary", "Tension-Type Headache" AND "Comorbidity" combined using the Boolean operator "AND". We selected studies available in their full versions, published in English, Portuguese or Spanish, between 2019 and 2023. After screening in stages, excluding the review type studies and those that were not directly related to the aforementioned descriptors, 10 articles were selected that addressed the comorbidities associated with tension-type headaches.

Results
Entering the sphere of primary headaches, there were relevant associations between comorbidities and tension-type headache. An analysis, carried out with patients affected by Generalized Anxiety Disorder or Major Depressive Disorder, found that these individuals were more affected by tension headaches, compared to people who did not have the comorbidities mentioned. A prospective study of 500 participants affected by epilepsy highlighted that 32.6% of them had headache at least once a month; of these, 33.1% had tension headache, confirming its relationship with the comorbidity of epilepsy. An analysis of patients affected by the comorbidity of Hashimoto's thyroiditis showed that changes in the levels of thyroid hormones, influencing neurotransmitters, were also related to tension headache. A cross-sectional study conducted with 570 individuals over 50 years of age showed that more than 70% of them, presenting comorbidities, such as hypertension or irritable bowel syndrome, had primary headaches, especially tension- type headaches. It was found that arterial hypertension, by the biomarker present in the smaller T allele of the NOS1 gene, has a high risk of being confluent to tension headache, due to indirect dysregulation of the action of neurotransmitters. A study conducted with female patients highlighted, for this same cause, a significant relationship between the comorbidity of irritable bowel syndrome and the development of tension headache. In addition, a cross-sectional approach conducted with 1340 Saudi students showed that individuals affected by depression were more likely to suffer from tension headaches and vice versa. Finally, a study pointed out that individuals affected by hypothyroidism, due to changes in neurotransmitter levels, were more likely to develop tension headaches.

Conclusion
It is legitimate to state, therefore, that, within the scope of primary headaches, the comorbidities associated with tension-type headaches are diverse, of considerable incidence and quite relevant in society. Therefore, considering the different ways in which such comorbidities can manifest themselves, more and more studies are needed to improve the treatments of comorbidities associated with this condition, based on the specificities of the syndromic conditions of each patient.

Keywords: Headache Disorders; Primary; Tension-Type Headache; Comorbidity.