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The Effects of Physical Exercise in the Treatment of Migraine: a Literature Review

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Introduction
Migraine is a disabling primary headache disorder that affects about 13% of the world's population. It is the second most prevalent neurological disorder and causes more disability than all others put together. Clinically, it manifests as acute headache episodes that may be accompanied by nausea, vomiting, confusion, blurred vision, fatigue, and hypersensibility to light, sound, or noise. When those episodes become highly frequent, it can mean the condition has developed into a chronic migraine. Its pathogenesis is widely credited to a peripheral and central activation of the trigeminovascular system, but the specific pro-cesses remain obscure.
Unlike most chronic conditions, the healthy and young or middle-aged population are largely affected. It has been reported in the 18 to 44 years population the highest migraine prevalence. Migraines affect people's quality of life and ability to participate in work, family, and social events.
Even though there are many pharmacological treatment options available to migraines, these can not be effective for some patients individually, and they may have side effects. As for the prophylactic drugs, non-adherence is a common problem faced by physicians. Therefore, since this condition exerts influence on a large parcel of the population with significant well-being and social damage, it becomes clear that further evidence-based non-pharmacological approaches to complement pharmacothera-py in migraine prevention is needed.
Objectives
The present study aims to analyze the importance of physical exercise as treatment to chronic headache through the identifica-tion of its beneficial effects and to evaluate which exercise modality offers the most satisfying results.
Methods
This study was based on selected articles available on PubMed and Google Scholar databases. "Migraine", "treatment" and "physical exercise" were used as descriptors on both databases. Next, the filter "published in the last 5 years" was applied, resulting in 146 results. The selection was made based on the articles with the most relevant highlines on the addressed subject where the focus was simultaneous presence of the themes, therefore, excluding the studies on which the themes were approa-ched separately. Finally, 4 articles compatible with the aims of this study were selected.
Results
Based on these articles it can be seen that exercises play an important role in prophylactic and therapeutic treatment for mi-graine. It was reported that exercises cause a significant reduction in pain intensity as well as beneficial effects on duration and frequency of migraine attacks, with no worsening of the condition. Furthermore, while all tips of intervention protocols are effective in reducing the frequency of migraine, strength/resistance training resulted in the highest efficacy followed by high-intensity and moderate-intensity aerobic exercise.In teenegers and adults migrine patients, scientific research shows that in addition to decrease migraine outcomes, there are a series of benefits that improve the quality of life of these patients and conferring multiple health benefits.
Conclusion
In this context, exercise practice has shown to be an important non-pharmacological approach for the reduction of frequency, duration and intensity of migraine attacks as well as the control of other comorbidities that reduce the quality of life of these patients. Furthermore, strength training exercise has shown highest efficacy, followed by high-intensity aerobic exercise.

Keywords: Exercise; Migraine; Treatment.