Efficacy of Ginger for the Improvement of Migraine: A Systematic Review

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ABSTRACT

Introduction: Migraine is a common disorder characterized by recurrent headaches and is recognized as a major public health issue. Although many medications are available for treating migraines, these treatments come with side effects. They are prescribed cautiously and for a limited duration. Therefore, dietary interventions for prevention and improvement are critical. Ginger is not only a culinary spice used to flavor food but also a medicinal herb that has been used for thousands of years to treat various ailments. Ginger has high potential in preventing and treating various diseases, including colds, nausea, arthritis, migraines, and hypertension. This study aimed to investigate the effect of ginger consumption on the prevention or improvement of migraine symptoms.

Search Strategy: This study was conducted using the systematic review method of relevant reports published in PubMed, Web of Science, Scopus, and the Google Scholar search engine until January 2024. In this search, the keywords “ginger”, “migraine”, and “headache”, as well as all English-language studies relevant to the study’s objective were included. Letters to the editor and conference abstracts were excluded from thr study. The included studies were evaluated by the researcher and, after separation, review, and final confirmation, were used. Additionally, the quality of the included studies was assessed using the Cochrane tool.

Results: A total of 14 out of 97 studies were included in this systematic review. The results indicated that ginger has the potential to treat patients with acute migraines, although there are certain limitations. Using ginger as an adjunct therapy alongside non-steroidal anti-inflammatory drugs proved beneficial not only for treatment but also for prevention. The author emphasized that ginger should not be used as a substitute for prescribed medications without consulting a healthcare professional. Additionally, ginger demonstrated a stronger effect compared to a placebo in preventing migraines. It is important to note that the chemical composition of ginger varies depending on the source and extraction method; therefore, when a specific ginger extract is studied, the results are generalizable only to that extract and potentially to other extracts with a similar composition. Ginger is also recommended in Ayurvedic and traditional medicine systems. One suggested recipe is to mix half a teaspoon of ground ginger in a glass of water or to consume it in a cup of tea. However, it is essential to be aware that consuming ginger in high doses may lead to side effects such as heartburn, headaches, and dizziness.

Conclusion and Discussion: Given that the bioactive compounds in ginger have the potential to effectively and safely treat and prevent acute migraine attacks, the author recommends promoting the production of various medicinal forms of ginger extract for safe global use, with the goal of achieving higher absorption rates and enhanced therapeutic responses.

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