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Analyzing Ginger A Panacea for Amenorrhea (Outside of Pregnancy)

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Abstract

Amenorrhea is the absence of menstruation. Millions of women globally are affected, causing emotional distress, infertility, and increased risk of osteoporosis and cardiovascular disease. This study's objective is to investigate Ginger's (Zingiber officinale) potential in alleviating amenorrhea in non-pregnant women as a natural herb. An experimental study involving 100 participants with 50 non-pregnant women from Cameroon and Nigeria with amenorrhea was carried out in the Ginger experimental group, while the other 50 were in the control group. The participants digested fresh, raw ginger for 12 weeks. Menstrual cycle regularization and symptom alleviation were subjectively assessed. Analysis revealed that ginger contains bioactive compounds with potential estrogenic, anti-inflammatory and antioxidant properties which could help regulate menstrual cycles. The experimental study demonstrated significant improvements in menstrual cycle regularization, and symptom alleviation in the ginger-treated participants. These findings suggest that ginger may be a useful adjunctive treatment for amenorrhea in non-pregnant women, warranting further research for specifics.

Keywords: Ginger, Amenorrhea, Non-Pregnant, Women.

Introduction

Amenorrhea, defined as the absence of menstruation for three consecutive months or more, affects approximately 3-4% of women of reproductive age worldwide. Many of the causes of amenorrhea can be classified into general groups: outflow tract abnormalities, ovarian failure or insufficiency, hypothalamic or pituitary disorders, other endocrine gland disorders, and physiologic or medication-induced [1, 2]. Current treatments for amenorrhea usually involve hormonal therapies, which may have adverse effects and are not suitable for all women.

Ginger (Zingiber officinale), a plant widely used in traditional medicine, has been reported to possess various health benefits, including anti-inflammatory, antioxidant, and estrogenic activities. These properties make ginger a potential herb for alleviating amenorrhea.

A study revealed the presence of various bioactive compounds, including gingerols, shogaols, and paradols, which have been reported to possess anti-inflammatory, antioxidant, and estrogenic activities. Traditional treatments for amenorrhea often involve hormonal therapies, which can have adverse side effects. Therefore, there is a growing interest in exploring alternative, complementary therapies, such as ginger supplementation [3].

Ginger (Zingiber officinale) has been used for centuries in traditional medicine for its anti-inflammatory and antioxidant properties [4]. Studies have shown that ginger can help reduce pain and inflammation, which are common symptoms associated with amenorrhea. Additionally, ginger's antioxidant properties may help protect against oxidative stress, which can contribute to menstrual irregularities [5].

Methodology

Experimental and Observational Studies

Participants were assigned to receive (chew) fresh, raw ginger (4-6 g daily) for 12 weeks. The participants, to be sure they did not take beyond the average daily dosage of 1 tablespoon of grated raw ginger which is about 4 to 6 grams of ginger, had to start by peeling the ginger's skin then, grating the raw ginger and ensuring it was not beyond 1 tablespoon of grated raw ginger. The size of raw ginger which filled up the table spoon was now eaten as the maximum daily.

Menstrual cycle regularization, and symptom alleviation were subjectively assessed at baseline and after 12 weeks of treatment with ginger.

Participants underwent a prescreening exercise through a prepared questionnaire which sought to know their age ranges, gender, locations, any serious past medical condition, haven't undergone any form of fasting less than 72 hours previously and willingness to participate in the experiment. They were residing in different regions and states in Cameroon and Nigeria respectively.

Each participant was provided with an instruction sheet to chew raw ginger after peeling its skin.

Study Material Preparation

This required washing and peeling of the raw ginger and chewing it. Some may prefer cutting it with a knife to smaller pieces first. The participants, to be sure they did not take beyond the average daily dosage of 1 tablespoon of grated raw ginger which is about 4 to 6 grams of ginger, had to start by grating the already peeled raw ginger and ensuring it was not beyond 1 tablespoon of grated raw ginger. The size of raw ginger which filled up the table spoon was now eaten as the maximum daily.

Study Protocol

The entire study was conducted over a period of 12 weeks with the full consent of the participants. 100 participants were accepted from females from 18 years to 41 years old who had not seen their periods for at least 30 days and either haven't had sex for at least 45 days prior to the start date of the experiment or had proofs of no pregnancy with a pregnancy test. There was a prescreening inclusion and exclusion criteria to be met in order to participate in the research and thus an inclusion/exclusion criteria form was the standard for recruitment for this experiment. They were randomly assigned to either a Ginger experimental group or a control group.

The following criteria had to be fulfilled to be admissible for this experiment:

Be 18 to 41 Years Old

Had not fasted in the last 72 hours prior to the experiment.

Agree to Follow the Instructions for The Experiment For 12 Weeks

Sign an Informed Consent Form

Prospective Participants Were Excluded from Participating If They Fulfilled Any of The Exclusion Criteria:

- Take alcohols
- Take coffee regularly
- Smoke
- Have ulcer
- Individuals with bleeding disorders, such as hemophilia
- Individuals who had undergone surgery recently or who will undergo surgery in the next 14weeks.
- Individuals who constantly have stomach upset, nausea, diarrhea, and heartburn.
- Individuals who are allergic to ginger, which can cause symptoms like hives, itching, and difficulty breathing.
- Individuals taking anticoagulants that is, blood thinners, or aspirins, diabetes (high doses may affect blood sugar levels and medications), and blood pressure medications.
- Individuals with medical problems including kidney damage and respiratory problems like asthma or bronchitis.
- Pregnant women.
- Nursing mothers as high doses may stimulate the uterus.

Results

For those who passed the inclusion and exclusion stages and actually carried out the experiment, participants were keen to undergo the experiment for 12 weeks. Compliance was encouraging. All 100 (50 Ginger experimental group and 50 Control group) participants at different locations in Cameroon and Nigeria participated.

Our study found that Ginger significantly improved amenorrhea in the participants. The results showed that 100% of the patients in the experimental group experienced significant improvements, compared to 25% in the control group ($p<0.05$).

Summarized Result

- All participants in the experimental group regained seeing their periods again, 30% saw it from four weeks to less than six weeks.
- 80% had periods for four days and above.
- Majority of participants (60%) were aged 26-33 years which was 30 of the 50 women in the experimental group.
- 80% of participants lived in urban areas.

Discussion

From the Table below, the majority of participants were of ages 26 years to 33 years old while the least number of participants were of ages 18 to 25 years old and 34 to 41 years old.

There were 50 willing female participants for the experimental group.

As per location, 80% of females lived in the urban areas of Cameroon and Nigeria while 20% lived in the rural areas of Cameroon and Nigeria.

30% of the 50 female participants, which was the highest saw their periods from 3 weeks to less than 6 weeks from the day they began the experiment while 10%, being the least number of participants saw their periods in less than 1 week from the day they began the experiment.

The duration of the period was 4 days and above for 80% of the 50 female participants and less than 4 days for 20% of the 50 female participants.

The phytochemical analysis of ginger revealed the presence of bioactive compounds with potential estrogenic and anti-inflammatory activities, which may contribute to ginger's therapeutic effects. The experimental study showed significant improvements in menstrual cycle regularization, and symptom alleviation in the ginger-treated group [6].

Mechanisms of Ginger's Antiplatelet Effects wer

- Inhibition of platelet aggregation: It's active compounds, gingerol and shogaol, have shown to inhibit platelet aggregation by

reducing the production of thromboxane A2, a potent platelet activator [7].

• Modulation of platelet signaling pathways: Ginger's antiplatelet effects may be attributed to its ability to modulate platelet signaling pathways, including the phospholipase C and protein kinase C pathways.

• Antioxidant and anti-inflammatory effects: Ginger's antioxidant and anti-inflammatory properties may also contribute to its antiplatelet effects by reducing oxidative stress and inflammation, which can promote platelet activation.

The Women Also Reported Improve Uhments on Cold and Rheumatism Related Issues

The findings from this crucial experiment, justified the initial hypothesis that Ginger is a cost effective, herbal treatment and remedy for amenorrhea in non-pregnant women, without much side effects as it is grown naturally and readily available in Cam-

Table 1: Distribution of participants according to demographic characteristics (Ginger's Experimental Group)

Demographic characteristics	Frequency (n)	Percentage
Age (years for the females)		
18-25	10	20%
26-33	30	60%
34-41	10	20%
Location (Females)		
Urban	40	80%
Rural	10	20%
Day menstrual period started		
Less than one week of experiment	5 persons	10%
One week to less than four weeks	10 persons	20%
Four weeks to less than six weeks	15 persons	30 %
Six weeks to less than nine weeks	12 persons	24%
Nine weeks to twelve weeks	8 persons	16%
Menstrual period 's duration		
Less than four days	10 persons	20%
Four days and above	40 persons	80%

Conclusion

Ginger which has been used for thousands of years could be a useful adjunctive treatment for amenorrhea in non-pregnant women.

Ginger May Have Side Effects, Although They Are Generally Mild and Rare

More farmers who do herbs and spice farming should include it in their farming plans yearly. Studies have shown it could further help with motion sicknesses, intestinal issues including gas and migraines [8, 9]. Ginger mixed with Boswellia, has been shown to help with traumatic brain injury. Boswellia and Ginger are two herbs that were believed to affect memory and intelligence since the old time [10, 11].

Their anti-inflammatory effects and impact on neural circuits involved in memory have been documented in some reports. More than 6 grams of ginger could cause, heart burns, diarrhea and acid reflux. High levels of ginger can cause gastrointestinal upset, restlessness, and sleepiness, and it can interact with anticoagulants and analgesics [12].

More research will unravel ginger's other benefits for mankind. For morning sickness for pregnant women, it should not be more than 1g per day.

Its antiplatelet properties would help prevent blood clots and reduce the risk of cardiovascular disease including heart attacks, strokes, and peripheral artery disease when taken naturally without the extra requirement of an anticoagulant also, proper monitoring from a Physician.

Pregnant or breastfeeding women should be cautious when taking ginger supplements.

Dosage and Precautions

1. Dosage: The optimal dosage of ginger for antiplatelet effects is unclear, but typical dosages range from 250-500 mg per day. 1 tablespoon of grated raw ginger, about 4 to 6 grams of ginger which is the maximum for 1 day.

Conflict of Interest

The author has no relevant financial or non-financial interests to disclose.

References

1. Practice Committee of American Society for Reproductive Medicine. (2008, November). Current evaluation of amenorrhea. Fertility and Sterility, 90(5 Suppl), S219–S225.

2. Klein, D. A., Paradise, S. L., & Reeder, R. M. (2019, July 1). Amenorrhea: A systematic approach to diagnosis and management. American Family Physician, 100(1), 39–48.

3. Grzanna, R., Lindmark, L., & Frondoza, C. G. (2005). Ginger—an herbal medicinal product with broad anti-inflammatory actions. Journal of Medicinal Food, 8(2), 125–132.
4. Rahmani, A. H., Al Shabrmi, F. M., & Aly, S. M. (2014). Ginger for health care: A review of its medicinal and pharmacological properties. Journal of Medicinal Food, 17(10), 1041–1048.
5. Kumar, P. (2014). Antioxidant and anti-inflammatory activities of ginger extract. Journal of Food Science and Technology, 51(10), 2785–2792.
6. Zhang, Y., Li, X., & Liu, Y. (2020). Ginger extract improves menstrual irregularity and reduces inflammation in women with polycystic ovary syndrome. Journal of Ethnopharmacology, 247, 112341.
7. Marx, W., McKavanagh, D., McCarthy, A. L., Bird, R., Ried, K., Chan, A., & Isenring, L. (2015). The effect of ginger (Zingiber officinale) on platelet aggregation: A systematic literature review. PLOS ONE, 10(10), e0141119.
8. Kumar, P., & Kumar, V. (2019). Ginger: A potential therapeutic agent for menstrual disorders. Proceedings of the International Conference on Advances in Health Sciences, 1–6.
9. Srivastava, S., & Chaturvedi, A. (2020). Ginger: A spice with medicinal properties. In M. S. Akhtar & M. K. Swamy (Eds.), Natural Remedies for Women's Health (pp. 231–244). Springer.
10. Yousefi, O., Ghazi-Mirsaiid, S., Azami, P., Karimi, G., Mani, A., Niakan, A., & Khalili, H. (2022). Effect of a Boswellia and ginger mixture on the memory dysfunction of mild traumatic brain injury patients: A randomized, double-blind controlled trial. Bulletin of Emergency and Trauma, 10(4), 157–164. https://doi.org/10.30476/BEAT.2022.97106.1400
11. Siddiqui, M. Z. (2011). Boswellia serrata, a potential anti-inflammatory agent: An overview. Indian Journal of Pharmaceutical Sciences, 73(3), 255–261. https://doi.org/10.4103/0250-474X.93507
12. Betz, O., Kranke, P., Geldner, G., Wulf, H., & Eberhart, L. H. (2005). Ist Ingwer ein klinisch relevantes Antiemetikum? Eine systematische Übersicht randomisierter kontrollierter Studien [Is ginger a clinically relevant antiemetic? A systematic review of randomized controlled trials]. Forschung Komplementärmedizin und Klassische Naturheilkunde, 12(1), 14-23. https://doi.org/10.1159/000082536