

MOTHERISK UPDATE

Taking ginger for nausea and vomiting during pregnancy

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ABSTRACT

QUESTION Many of my patients prefer to use natural or herbal medicines, such as ginger, before taking drugs to treat nausea and vomiting of pregnancy. Is there evidence that ginger is safe to use during pregnancy? Is it effective?

ANSWER Although ginger is used in many cultures to treat the symptoms of nausea and vomiting, no trials have established its safety for use during pregnancy. On the other hand, its efficacy has been documented in two randomized, blinded controlled trials.

RÉSUMÉ

QUESTION Plusieurs de mes patientes préfèrent utiliser des produits naturels ou de phytothérapie comme le gingembre plutôt que de prendre des médicaments contre la nausée et les vomissements causés par la grossesse. Existe-t-il des données scientifiques prouvant l'innocuité du gingembre pendant la grossesse? Est-ce efficace?

RÉPONSE Quoique le gingembre soit utilisé dans plusieurs cultures pour traiter les symptômes de la nausée et les vomissements, aucun essai n'a établi l'innocuité de son utilisation durant la grossesse. D'autre part, son efficacité a été documentée dans deux essais contrôlés randomisés à double insu.

Although nausea and vomiting of pregnancy (NVP) can affect up to 80% of all pregnant women,¹ it is largely ignored in medical research and in development of new treatments. Even when the condition is mild, symptoms can cause considerable distress and temporary disability.² Our research team at the Motherisk Program is one of very few groups to focus on treatment of NVP. In an attempt to improve the lives of women with NVP, we try to investigate the optimal treatment modalities.

Despite the fact that there is safe and effective pharmacologic treatment for NVP,

many women and their physicians are still cautious and often fearful of taking drugs during pregnancy. Occasionally, lack of treatment leads to severe hyperemesis and results in hospitalization and rehydration with intravenous fluids. This has great emotional and financial costs.

Many women try alternative therapies for NVP that range from herbal products to homeopathic drugs to acupuncture or acupressure. These therapies seem attractive due to their "natural status." Nonpharmacologic interventions, such as advice on diet and lifestyle changes, are often recommended before physicians discuss use of medication. The drug of choice in Canada for treating NVP is vitamin B₆ and doxylamine succinate (Diclectin). Other treatments, such as phenothiazines,³ antihistamines,^{3,4} and metoclopramide,^{3,5} are also used.

Do you have questions about the safety of drugs, chemicals, radiation, or infections in women who are pregnant or breastfeeding? We invite you to submit them to the Motherisk Program by fax at (416) 813-7562; they will be addressed in future Motherisk Updates. Published Motherisk Updates are available on the College of Family Physicians of Canada website (www.cfpc.ca). Some articles are published in *The Motherisk Newsletter* and on the Motherisk website (www.motherisk.org) also.

Motherisk questions are prepared by the **Motherisk Team** at the Hospital for Sick Children in Toronto, Ont.

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Ginger has been one of the most widely used treatments for NVP, despite the fact that there are few data on either its safety or efficacy. A survey on management of NVP sent out to obstetricians and gynecologists in the United States found that 51.8% of respondents recommended ginger for treatment of moderate nausea.⁶ We surveyed 500 women suffering from severe NVP and found that 17% of them preferred non-drug treatments, such as ginger, to treat their symptoms.²

The efficacy of ginger is thought to be due to its aromatic, carminative, and absorbent properties.⁷ Two randomized controlled trials in the literature report on the efficacy of ginger for NVP.^{8,9} The first was a small, crossover trial with 27 women admitted to hospital for treatment of hyperemesis gravidarum. They were given 250-mg ginger capsules four times daily for 4 days. This was followed by a 2-day washout period and a second 4-day period during which they were given 250-mg placebo capsules. The severity and relief of symptoms before and after each period were evaluated. A significant reduction in the symptoms of hyperemesis, measured as degree of nausea and number of vomiting attacks

($P = .035$), was observed with the ginger treatment.

A recent parallel control trial of 70 women randomized 35 of them to treatment with 250-mg ginger capsules and 35 to 250-mg placebo capsules four times daily for 4 days. Subjects graded the severity of nausea using visual analog scales and recorded the number of vomiting episodes. A five-item Likert scale was used to assess the severity of their NVP symptoms. Both symptoms of nausea ($P = .014$) and number of vomiting episodes ($P < .001$) decreased significantly with ginger. Likert scale scores showed that 28 of 35 in the ginger group experienced improvement in nausea symptoms compared with only 10 of 35 in the placebo group ($P < .001$).

Unlike its efficacy, research has not adequately addressed whether ginger is safe for developing fetuses. Animal studies have shown ginger to be a potent thromboxane synthetase inhibitor; it could affect testosterone receptor binding and sex steroid differentiation in the fetal brain.¹⁰ Neither animal studies nor prospective controlled studies on the safety of ginger for pregnant women have been carried out.

Nausea and vomiting of pregnancy is a serious condition that should be treated appropriately. Ginger is an effective remedy that is used in many traditional cultures and frequently mentioned in the literature as a treatment for nausea and vomiting with no evidence to suggest it is teratogenic. ❖

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