



Motherisk Update

Compliance with prenatal vitamins

Patients with morning sickness sometimes find it difficult

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ABSTRACT

QUESTION Many pregnant patients cannot tolerate multivitamins because of morning sickness. Is it the tablet size or the iron content that causes the problems, and what can be done?

ANSWER Recent Motherisk studies have shown both tablet size and high iron content to be associated with lower compliance among women with morning sickness. It does appear that tablet size is more likely to affect compliance. Some new multivitamin tablets are smaller, and some have less iron content.

RÉSUMÉ

QUESTION De nombreuses patientes enceintes ne tolèrent pas les multivitamines en raison des nausées matinales. Est-ce la grosseur des comprimés ou la concentration en fer qui cause ce problème et comment peut-on y remédier?

RÉPONSE De récentes études par Motherisk révèlent que le manque d'assiduité au traitement chez les femmes qui ont des nausées matinales peut s'expliquer autant par la grosseur des comprimés que par la forte teneur en fer. Il semble que ce soit la grosseur des comprimés qui incite le plus les femmes à ne pas en prendre. Certaines nouvelles multivitamines sont plus petites et certaines contiennent moins de fer.

The problem

While women are encouraged to take prenatal vitamins when planning pregnancy and throughout gestation, nausea and vomiting of pregnancy (NVP) can deter them from taking these supplements. Some women are unable to take or to tolerate tablets. Prenatal micronutrient combinations with high iron content are associated with higher rates of gastrointestinal symptoms.¹ This, coupled with NVP, often results in women discontinuing multivitamins.

The study

A new prescription supplement (PregVit) that separates iron and calcium into 2 tablets—1 taken in the morning and 1 taken in the evening—has less elemental iron content (35 mg), but results in similar iron absorption when compared with another supplement (Materna) containing 60 mg of elemental iron. In a recent study, Motherisk compared pregnant women taking PregVit or Materna as to how well they tolerated and complied with the medication.¹ This was a randomized, cross-over, open-label study of 135 pregnant women attending outpatient clinics in Ontario and Quebec.

Use of PregVit, with its lower iron content, was associated with a 30% reduction in rates of constipation compared with Materna. Both products had similar compliance rates. Compliance with Materna was negatively associated with severity of NVP. No such correlation was found for PregVit.

PregVit is a small tablet that has to be taken twice daily. In contrast, Materna is a large tablet taken once daily. The similar compliance rates probably reflect a balance between the better tolerability of PregVit and the convenience of once-daily administration of Materna. Since the completion of the study, a new Materna formulation with less iron content has been introduced into the market, although the tablet is still large in size.

Recommendations

In an ongoing study, (personal communication from Nguyen et al), preliminary results suggest that the size of tablets and not the iron content is the critical barrier to compliance among women with NVP. Hence, you might help your pregnant patients with NVP by choosing smaller prenatal vitamin tablets. In addition to Pregvit, another prenatal vitamin, Orifer, is available in a smaller tablet.



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Competing interests

The study described in this Motherisk Update was sponsored with an unrestricted free grant by Duchesnay Inc, manufacturer of PregVit. Duchesnay also partially sponsors the Motherisk NVP Healthline.

Reference

1. Ahn E, Pairaudeau N, Pairaudeau N Jr, Cerat Y, Couturier B, Fortier A, et al. A randomized cross over trial of tolerability and compliance of a micronutrient supplement with low iron separated from calcium vs high iron combined with calcium in pregnant women. *BMC Pregnancy Childbirth* 2006;6:10.

MOTHE RISK

Motherisk questions are prepared by the Motherisk Team at the Hospital for Sick Children in Toronto, Ont. Dr Pairaudeau works at North York General Hospital and Dr Koren is Director of the Motherisk Program. Dr Koren is supported by the Research Leadership for Better Pharmacotherapy during Pregnancy and Lactation and, in part, by a grant from the Canadian Institutes of Health Research. He holds the Ivey Chair in Molecular Toxicology at the University of Western Ontario in London.

Do you have questions about the effects 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.

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