

Gastro-intestinal Problems in

PREGNANCY: *A Basic Approach*



Dr Jack Biko, MBBCh, MMed O&G, FCOG
Gynaecologist, Pretoria University and Kalafong Hospital

The majority of pregnant women will experience the symptoms of morning sickness, heartburn and constipation during the course of their pregnancy. The pharmacist should be able to manage these symptoms in most cases.

Many dilemmas exist when assessing the impact of a drug on a pregnant woman and her developing foetus. It is not always easy or ethical to perform randomised controlled studies in pregnant women to demonstrate drug safety.

The US Food and Drug Administration (FDA) classifies the risk of drugs during pregnancy as follows:¹

- (A) "Controlled studies show no risk. Adequate, well-controlled studies in pregnant women have failed to demonstrate risk to foetus."
- (B) "No evidence of risk in humans. Either animal findings show risk but human findings do not; or, if no adequate human studies have been done and animal findings are negative."

(C) "Risk cannot be ruled out. Human studies are lacking, and animal studies are either positive for foetal risk or lacking as well. However, potential benefits may justify the potential risk."

(D) "Positive evidence for risk. Investigational or post marketing data show risk to the foetus. Nevertheless, potential benefits may outweigh the potential risk."

(X) "Contraindicated in pregnancy. Studies in animals or humans, or investigational or post-marketing reports, have shown foetal risk which outweighs any possible benefit to the patient."

Most minor ailments in pregnancy do not require drug treatment. However, many drugs can be used safely in pregnancy. The pharmacist is often consulted by the pregnant patient and must therefore have a basic under-

standing of the physiological changes induced by pregnancy and the possible untoward effects of certain drug groups as classified by the FDA. The aim of this article is to provide a simple approach to manage common gastrointestinal ailments.

MORNING SICKNESS

Nausea with or without vomiting, is one of the commonest complaints pregnant patients present with. It occurs any time of the day despite being referred to as morning sickness. Its aetiology is unknown but various theories have been suggested. Morning sickness is usually mild and transient and resolves spontaneously by the end of the first trimester. However, some cases may be severe and protracted (hyperemesis gravidarum), inducing a variety of debilitating and life-threatening complications. Patients with significant ketonuria, dehydration and those who cannot retain food and fluids need urgent referral to a central facility.

The initial management should be to advise lifestyle changes. These include avoiding fatty meals and aromas that trigger nausea. Iron tablets should preferably be avoided in the first trimester of pregnancy as they may also induce nausea and vomiting. Studies have shown that ginger is effective in relieving symptoms. Fischer-Rasmussen *et al*² conducted a randomised trial of ginger for the treatment of morning sickness. After 4 days, there was a significant reduction in both nausea and vomiting in patients receiving 125 mg of ginger six hourly.

Pyridoxine (Vitamin B6) 10 mg every eight hours, has also been shown to effectively relieve the symptoms of severe nausea.³ Emex and Emetrol are reportedly safe to use in pregnancy.

Most anti-emetic drugs have been used in the treatment of morning sickness with some degree of success. These drugs are generally FDA category C drugs and should only be used if other measures fail to relieve symptoms.

HEARTBURN

Gastro-oesophageal reflux disease is common in pregnancy, affecting 30 –

| Line | Management |
|----------------------|--|
| 1 st line | Avoid greasy meals and aromas Avoid iron tablets in first trimester |
| 2 nd line | Emex/Emetrol 15 – 20 mls as required Pyridoxine 10 – 25 mg daily Ginger 125 mg 6 hourly for 4 days |
| 3 rd line | Antiemetic drugs (usually category C) Prochlorperazine Metochlorpramide |
| 4 th line | Refer for management of dehydration and to prevent complications of hyperemesis gravidarum |

50% of all pregnant patients.⁴ Patients report worsening of symptoms during meals and at bed time. The aetiological factors include a decrease in the lower oesophageal sphincter pressure due to hormonal changes induced by the pregnancy, delayed bowel transit time and possibly the physical space occupying effects of the gravid uterus. Heartburn may also represent an exacerbation of a pre-existing gastro-oesophageal reflux disease. However, pregnancy induced heartburn resolves soon after delivery.

Complications of heartburn such as oesophagitis and stricture formation are rare in pregnancy induced heart-

burn, and therefore gastroscopy is usually not necessary.

The management of heartburn has to be in a stepwise fashion, starting with lifestyle changes and dietary manipulation.

CONSTIPATION

Constipation is a common problem in pregnancy. It occurs due to reduced bowel motility, increased water and salt re-absorption from the colon, and due to the obstructive mechanical effects of the uterus. It tends to get worse as the pregnancy progresses. Patients may develop severe discomfort and pain if not managed adequately.

| Category | Management |
|--|---|
| Lifestyle changes | Stop smoking, avoid alcoholic beverages, elevate head end of bed when sleeping, chewing gum may help to neutralise gastric acids. |
| Dietary changes | Have frequent, smaller meals rather than 3 large meals, have supper earlier, avoid foods causing heartburn. |
| Antacids | Aluminium, calcium and magnesium: Mostly safe to use. Rapid relief of symptoms. Sucralfate: Use in pregnancy acceptable. Relieves symptoms. Sodium bicarbonate: Do not use in pregnancy, may cause alkalosis. |
| Histamine₂-receptor blockers | Cimetidine: Effective. FDA category B drug. Ranitidine: Effective. FDA category B drug. |
| Proton pump inhibitors | Omeprazole: Rather refer patients. Effective. Not first line. FDA category C drug. |

Management

Increased fluid intake

Increasing fluid intake does not have an important effect on colonic function, and it is not recommended to treat constipation unless there is evidence of dehydration.⁵

High fibre diet

Patients must be advised to increase fibre intake initially. Dietary modification such as increased intake of fresh fruit, vegetables and adding bran or wheat can usually help. These patients must be requested to have follow up visits to determine if there has been any improvement in stool consistency, as constipation due to slow transit time might actually get worse with a high fibre diet.⁵

Laxatives are usually not necessary,

however, if there is no improvement, laxatives that stimulate the bowel are more effective than those that add bulk. Studies have reported a good response to a single dose of 7,5 mg senna.

Probiotics

Probiotics are defined as live micro-organisms which, when administered in adequate amounts, confer a health benefit to the host.¹¹ There is some evidence that probiotics may relieve constipation.⁶ There are unfortunately no studies that compare the efficacy of probiotics to that of a high fibre diet.

CONCLUSION

Many of these minor ailments will get worse if not treated early. The pharmacist has a very important role to play in triaging patients, educating patients and managing minor conditions, therefore preventing many

hospital admissions. Treatment must be individualised and serious conditions must be excluded and referred without delay. If you are not sure, rather refer. □

References:

1. Sannerstedt R, Lundborg P, Danielsson BR et al. Drugs during pregnancy: An issue of classification and information to prescribers. *Drug saf* 1996; 14; 2: 69 – 77.
2. Fischer-Rasmussen W, Kjaer SK, Dahl C et al: Ginger treatment of hyperemesis gravidarum. *European J obstetr and gynecol Reprod Biol.* 1990; 38:19
3. Vutyavanich T, Wongtra-ngan S, Ruangsri R. Pyridoxine for nausea and vomiting of pregnancy: a randomized double-blind, placebo-controlled trial. *American J Obstet Gynecol* 1995; 173: 881 - 884
4. Richter J E. Gastro-oesophageal reflux disease in pregnancy. *Gastroenterol clinic North Am.* 32: 235-261
5. Muller-Lissner SA, Kamm MA, Scarpignato C and Wald A. Myths and misconception about chronic constipation. *American J Gastroenterol* 2005; 100: 232 -242
6. Isolauri E, Salminen S and Ouwehand A C. Probiotics. *Best practice and research clinical gastroenterology* 2004. 18; 2: 299 – 313.