Published online 2014 March 19.

# Psyllium Powder Laxatives Are Effective Treatment of Constipation in Pregnancy, But What is About Safety?

Renata Bor<sup>1</sup>; Klaudia Farkas<sup>1</sup>; Anita Balint<sup>1</sup>; Tamas Molnar<sup>1,\*</sup>

<sup>1</sup>First Department of Medicine, University of Szeged, Szeged, Hungary

\*Corresponding author: Tamas Molnar, First Department of Medicine, University of Szeged, Szeged, Hungary. Tel: +36-62545198, Fax: +36-62545185, E-mail: tamas.molnar@med.uszeged.hu

Received: October 4, 2013; Accepted: October 5, 2013

Keywords: Pregnancy; Constipation; Psyllium Laxative

## Dear Editor,

Ghahramani et al. recently published a well-organized, double blind, placebo-controlled clinical trial concerning the efficacy of psyllium powder laxatives in preventing constipation, hemorrhoids, and anal fissure during pregnancy (1). The authors concluded that psyllium powder consumption used during the third trimester of pregnancy could significantly prevent constipation, hemorrhoid, and anal fissure. Although the beneficial effect of psyllium on constipation is well known, this is the first published study in this topic. What can explain it? We think that the possible reason is safety. The Food and Drug Administration (FDA) is issuing a final rule establishing that over-the-counter (OTC) laxative drug products in granular dosage form containing the bulkforming psyllium ingredients are not generally recognized as safe and effective (GRASE) and are misbranded. Ninety-eight total events of esophageal obstruction associated with all dosage forms containing psyllium were reported between 1966 and 2000. The vast majority of obstruction and choking-related events associated with psyllium laxatives in granular dosage form, in which 59 required hospitalization or medical intervention including endoscopic procedures to remove the blockage (2).

Constipation is a common symptom during pregnancy and 25-40% of pregnant women experience it (3). It can develop in the primigravidas even in those without any previous bowel problems. The majority of women with constipation prior to pregnancy complain about worsening of their symptoms. The incidence of hemorrhoids is high and in the postpartum period, anal fissures are present in 15% of women (4). Constipation in pregnant women is a multifactorial disorder; all physiological, anatomical, and hormonal changes play important roles in the development of the symptoms (3). The fact that the physiological changes in pregnancy cannot be altered and pregnancy should be protected makes the treatment of constipation quite difficult in this situation. Drugs affecting smooth muscle contraction are not recommended in pregnancy. In addition, it should be considered that the drug treatment might have teratogenic effects. Patient education plays an important role in the management of constipation in pregnancy. Lifestyle changes are the first steps of the therapy; physical activity as well as adequate fluid and fiber intake may improve the symptoms. It was shown that fiber supplementation during pregnancy increases the frequency of defecation and results in softer stools. Stimulant laxatives are more effective than bulkforming ones but they might have more serious side effects such as precipitating the contraction of the uterine smooth muscles (4). It was proven that in the non-pregnant population, the psyllium laxatives increased the frequency of defecation; however, data concerning the treatment of constipation in pregnancy are limited (5). The results of Ghahramani et al. (1) suggest that psyllium powder supplementation can be a great resource for pregnant patients with constipation. Since some data suggest that psyllium use might significantly reduce the systolic and diastolic blood pressures in overweight individuals with hypertension, it would be represented as another important indication of its usage (6). Therefore, the perspectives on psyllium use are increasing; safety can be the only limitation of its widespread use.

#### Acknowledgements

There is no acknowledgment.

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### **Authors' Contribution**

Renata Bor: analysis and interpretation of data; Renata Bor, Klaudia Farkas, and Anita Balint: critical revision of the manuscript for important intellectual content. Bor, Klaudia Farkas, Anita Balint and Tamas Molnar: critical revision of the manuscript for important intellectual content.

### **Financial Disclosure**

The authors stated that they had no financial interests related to the material in the manuscript.

### **Funding/Support**

There is no funding source.

#### References

- 1. Ghahramani L, Hosseini SV, Rahimikazerooni S, Bananzadeh AM, Namavar Jahromi B, Samsam A, Rezaeian Zadeh A, et al. The Effect of Oral Psyllium Herbal Laxative Powder in Prevention of Hemorrhoids and Anal Fissure during Pregnancy, a Randomized Double Blind Clinical Trial. *Ann Color Res.* 2013;1(1).
- Keller J, Frederking D, Layer P. The spectrum and treatment of gastrointestinal disorders during pregnancy. Nat Clin Pract Gastroenterol Hepatol. 2008;5(8):430–43.
- 3. Cullen G, O'Donoghue D. Constipation and pregnancy. *Best Pract Res Clin Gastroenterol*. 2007;**21**(5):807–18.
- 4. Jewell DJ, Young G. Interventions for treating constipation in pregnancy. *Cochrane Database Syst Rev.* 2001(2):Cd001142.
- Yang J, Wang HP, Zhou L, Xu CF. Effect of dietary fiber on constipation: a meta analysis. World J Gastroenterol. 2012;18(48):7378–83.
- Cicero AF, Derosa G, Manca M, Bove M, Borghi C, Gaddi AV. Different effect of psyllium and guar dietary supplementation on blood pressure control in hypertensive overweight patients: a six-month, randomized clinical trial. *Clin Exp Hypertens*. 2007;29(6):383-94.