Reviewer's report

Title: Erythromycin Lacks Colon Prokinetic Effect in Children with Functional Gastrointestinal Disorders, A Retrospective Study

Version: 2 Date: 6 February 2008

Reviewer: Menachem Hanani

Reviewer's report:

General
The potential novelty of this work is in showing that erythromycin has no effect on colonic motility in constipated children. This result may be important as it indicates that that erythromycin and related substances have no therapeutic potential as prokinetic drugs in the colon. However, there are several issues in the analysis and discussion that need to be addressed.

Major Compulsory Revisions

1. Colonic mechanical activity was assessed by measuring the area under the curve (AUC), which was calculated by assuming that the response is triangular. However, there is no evidence that this is so. The authors should present several original recordings to confirm this point. I suggest that they measure the actual AUC.

2. The authors concluded that erythromycin has no prokinetic effects on the colon. They do not address the question whether or not motilin receptors are present in this tissue, although from their discussion it might appear that they expect that this is the case. They should look in the literature for evidence for motilin receptors in the human colon.

A more serious point is the lack of a control group, i.e. children with no constipation. It might be argued that the abnormal motility in the patients is due to reduced expression of motilin receptors, or some other defect in the function of these receptors.

Minor Essential Revisions

1. Ref. 4 is not on motilin
2. The units for the AUC should be mmHgâ#cs not mmHg/s.
3. P. 4, patients with normal colonic motility were selected for this study. But these patients suffered from chronic constipation. Please explain
3. The authors ignore published work that indicated that erythromycin has no prokinetic influence on humans colon; for example: Jameson JS et al., Oral or intravenous erythromycin has no effect on human distal colonic motility. Aliment Pharmacol Ther.;6:589-595, 1992.

4. Style corrections:
P. 2, ".. patients with normal (what?)..

P. 3, "observational studies" (?)

P. 3, "Data is".

**What next?**: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

**Level of interest**: An article whose findings are important to those with closely related research interests

**Quality of written English**: Needs some language corrections before being published

**Statistical review**: No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests**: I declare that I have no competing interests.