BACKGROUND AND OBJECTIVES

Prucalopride, a selective serotonin 5-HT receptor agonist, has been studied in gastroparesis and functional constipation. This article critiques the clinical efficacy, considering a the major clinical trials done in the past for assessing its role in constipation, gastroparesis, and constipation symptom control.

METHODS

Relevant published medical literature was identified by using search terms "constipation," "gastroparesis," "prucalopride," "Resolor" from 2010 and onwards. The databases included MEDLINE and PubMed. Additionally, bibliographies from published literature and websites were also reviewed. Results were filtered for English language and randomized controlled trials. Out of the 18 results, abstracts were manually reviewed for studies with similar statistical methodology; seven studies were selected for constipation and two studies for gastroparesis.

RESULTS/OUTCOMES

In two 4-week trials, prucalopride showed improvement in Gastroparesis Cardinal Symptom Index (GCSI, with a 1mg, 2mg, or 4mg/day dosage. In seven 12-week trials in patients with chronic idiopathic constipation, oral prucalopride (2-4mg/day) significantly improved the number of bowel movements and constipation symptoms vs. placebo. Only one study revealed no significant bowel function improvement vs. placebo over 12 or 24 weeks; No explanation was found despite extensive evaluation for this unexpected result.

CONCLUSIONS

Prucalopride treatment should be recommended in patients with chronic idiopathic constipation (CIC) who have not experienced symptom improvement following lifestyle and dietary changes and use of any previous over the counter prescriptions/laxatives. Further long-term and comparable data, including a meta-analysis of current prucalopride trials for gastroparesis, will also be helpful. It would be fascinating to see the effect of prucalopride on irritable bowel syndrome-constipation predominant due to overlap with CIC. It would also be helpful for prospective future trials to study the effects of prucalopride in patients with concurrent gastroparesis and CIC, although this might demand an increase in dosage.

ACKNOWLEDGEMENTS

Authors acknowledge Dr.Leland's time and effort to review this article.