Effects of polyethylene glycol 4000 on 24-h manometric recordings of left colonic motor activity.


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BACKGROUND: It has been shown that low doses of polyethylene glycol (PEG) 4000 are effective in the treatment of chronic constipation. The aim of this study was to describe the effects on colonic motility of oral PEG 4000 treatment and intraluminal instillation of PEG 4000. METHODS: Left colonic and rectosigmoid manometric recordings were performed for 27 h in six constipated patients and in six healthy volunteers. At the end of the recording, bisacodyl and PEG 4000 were instilled into the lumen of the colon. To assess the effects of oral administration of PEG 4000 on colonic motility, manometric recordings were also performed in constipated patients after 4 weeks of treatment with PEG 4000. RESULTS: All patients had significantly more stools during than before PEG treatment. There was no significant difference between the number and the characteristics of high-amplitude propagating contractions (HAPC) or the area under the curve (AUC) before or during treatment with PEG 4000. Intraluminal instillation of PEG induced HAPC in only one patient and in no controls. CONCLUSION: This study shows that PEG 4000 has no effect on left colonic and rectosigmoid motor activity during oral treatment, despite its clinical effectiveness, or after local instillation. PMID: 11434589

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