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### Water-Soluble Alternative to Simethicone to Safely Visualize GI-Tract. Have We Found Our White Whale?

Teri Mallard

*Swedish Issaquah Medical Center, [teri.mallard@swedish.org](mailto:teri.mallard@swedish.org)*

Sandra Roswell

*Swedish Issaquah Medical Center, [sandra.roswell@swedish.org](mailto:sandra.roswell@swedish.org)*

Amarnath Ramakrishnan

*Swedish Issaquah Medical Center, [amarnath.ramakrishnan@swedish.org](mailto:amarnath.ramakrishnan@swedish.org)*

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# Water-Soluble Alternative to Simethicone

Have we found our white whale?



# Our Journey Began Over 3 Years Ago



Almost There!

# What Sparked the Fire?

**The Effect on Colon Visualization During Colonoscopy of the Addition of Simethicone to Polyethylene Glycol-Electrolyte Solution: A Randomized Single-Blind Study**

Relovec Stern, MD,<sup>1</sup> Aragan Topaloglu, MD,<sup>2</sup> Caroline Sussman, MD,<sup>3</sup> Yehuda Sarel,<sup>4</sup> Lee Katz, MD,<sup>5</sup> and David Kaminski, MD<sup>6</sup>

**OBJECTIVES:** Colonic bubbles associated with polyethylene glycol electrolyte solution (PEG-ELS) are common and obscure mucosal visualization. This study aimed to determine whether adding simethicone decreases the incidence of bubbles.

**METHODS:** Prospective, single-blind, randomized comparison of right (R-PEG-ELS vs. R-PEG-ELS + simethicone (R-ES)) for adequate colonoscopy. Bubble severity for colonoscopy was assessed as mild/moderate/severe. Bubbles subsided/continued with suction/lean/pain. Primary endpoint was Grade 0 or 1 bubbles in any colon segment. Secondary end points were clearing quality, retention and severity of side effects, and prep tolerance.

**RESULTS:** One hundred and thirty-two patients enrolled. Of 120 patients evaluated, 60 took R-PEG-ELS. The incidence of grade 0 or 1 bubbles was much lower with R-ES compared with R-PEG-ELS (2% vs. 38%, *P* = 0.001). Overall clearing (overall or good quality) was not significantly different for either the whole colon (90% PEG-ELS vs. 92% R-ES, *P* = 0.008) or right colon (90% PEG-ELS vs. 92% R-ES, *P* = 0.001). More R-ES patients had excellent/very good prep (left colon 52% vs. 38%, *P* = 0.004; right colon 52% vs. 38%, *P* = 0.004). Neither any flushing was less with R-ES (30% vs. 35%, *P* = 0.401). The groups were not significantly different with respect to total procedure and withdrawal times, incidence or severity of side effects, or number of prep repetitions or administrations.

**CONCLUSIONS:** Adding simethicone to PEG-ELS effectively prevents bubbles, substantially reduces the need for flushing, and results in more excellent preparation.

Colonoscopy and Gastroenterology 2012; 8, 465. doi:10.1007/s12328-012-0510-9. published online 28 November 2012. Impact Emergency Medicine.

**INTRODUCTION:** Effective bowel preparation is requisite for performance of high-quality colonoscopy. "Bowel preparation may be the most important step in the prevention, early diagnosis, and early treatment of colorectal cancer screening."<sup>1</sup> Subsequently, reporting the adequacy of bowel preparation using one of the several available scales is an important measure of colonoscopy quality.<sup>2</sup> It has been established that the presence, character, and quantity of bubbles as well as the ease with which it is removed is related to flushing and suctioning. Besides fluid and solid debris, adherent mucus may be an important obstacle to the evaluation of the mucosal colonic appearance in patients with a long-interval between the last dose of prep and the colonoscopy.

Another variable affecting mucosal visualization is colonic bubbles, although presence and severity of bubbles are not typically considered in when describing preparation quality. The widespread practice of adding simethicone to water flushing during the performance of colonoscopy suggests that it may improve mucosal visibility from bubbles in colonoscopy. In

**Simethicone residue remains inside gastrointestinal endoscopes despite reprocessing**

Ceri L. Okstad MPH<sup>1,2</sup>, Harry P. Wenzler MD, MPH<sup>1</sup>, Ellen A. Johnson BA<sup>1</sup>, Olin L. Reynolds BA<sup>1</sup>, Thomas J. Maust MD<sup>1</sup>, Michael J. Shaw MD<sup>3</sup>

**OBJECTIVES:** During a study designed to assess endoscope reprocessing effectiveness, a bioassay was used to assess the presence of simethicone residue on endoscopes. The bioassay was used to assess the presence of simethicone residue on endoscopes after reprocessing. The bioassay was used to assess the presence of simethicone residue on endoscopes after reprocessing.

**METHODS:** Photographs of endoscope head were taken using a fluoroscope. Simethicone residue was assessed using a bioassay. Simethicone residue was assessed using a bioassay. Simethicone residue was assessed using a bioassay.

**RESULTS:** Photographs of endoscope head were taken using a fluoroscope. Simethicone residue was assessed using a bioassay. Simethicone residue was assessed using a bioassay. Simethicone residue was assessed using a bioassay.

**CONCLUSIONS:** Simethicone residue remains inside gastrointestinal endoscopes despite reprocessing.

**Rates of infection at oesophagogastric centres in the USA**

Reijl Hans,<sup>1,2</sup> De Boer, A.<sup>1</sup> Schouten, Anthony Felix,<sup>1</sup> Sauer, Willem A.<sup>1</sup>

**OBJECTIVES:** The aim of this study was to determine the rates of infection at oesophagogastric centres in the USA.

**METHODS:** A retrospective study was conducted in the USA. The study included patients who had undergone oesophagogastric surgery between 2000 and 2010.

**RESULTS:** The study included 10,000 patients. The rates of infection were 1.5% for oesophagogastric surgery and 2.5% for oesophagogastric surgery.

**CONCLUSIONS:** The rates of infection at oesophagogastric centres in the USA are 1.5% for oesophagogastric surgery and 2.5% for oesophagogastric surgery.





Gluten Free | Vegan | Sugar Free

**Dietary Supplement**  
2.1 fl oz (62 ml)



# Found Something Promising

# Quality Improvement



# Get Serious

## Nursing Research Steering Committee Proposal

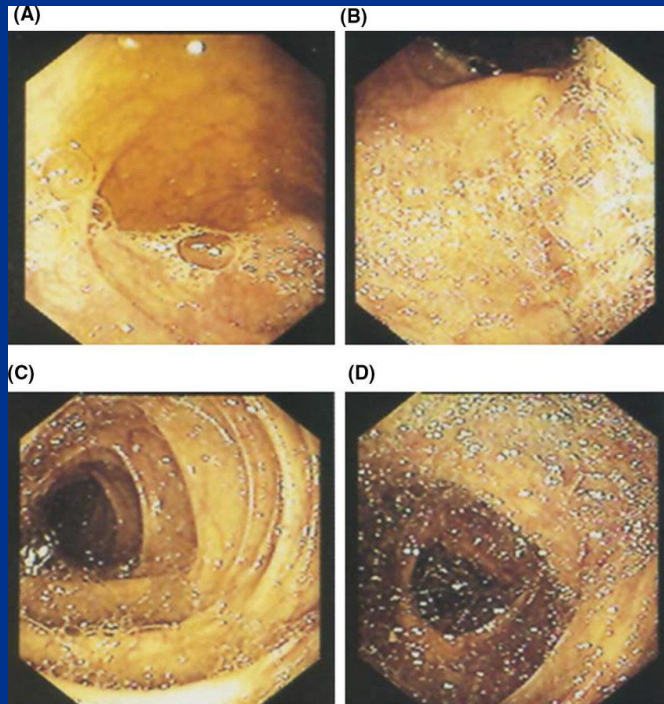
- Study Title
- Study Investigators
- Study Synopsis
- Study Type
- Study Duration
- Background Information
- Research Purpose and Objectives
- Research Design
- Subject Population
- Intervention
- Data Collection
- Data Analysis
- Method of Subject Recruitment
- Potential Scientific Biases
- Potential Conflicts of Interest
- Who will monitor the Study
- Enrollment Goal
- Administrative Approval
- Academic Affiliations
- References



# Study Method

Single Center, Non-randomized, Prospective,  
Open-labeled Pilot Study Design with 100  
Subjects

## Bubble Scale Score (0-3)



## Mixing Method





Providence Health  
System IRB  
Approved  
via Full Board Review

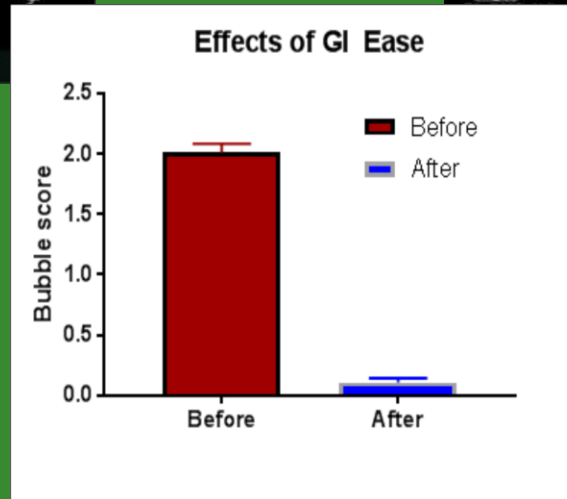
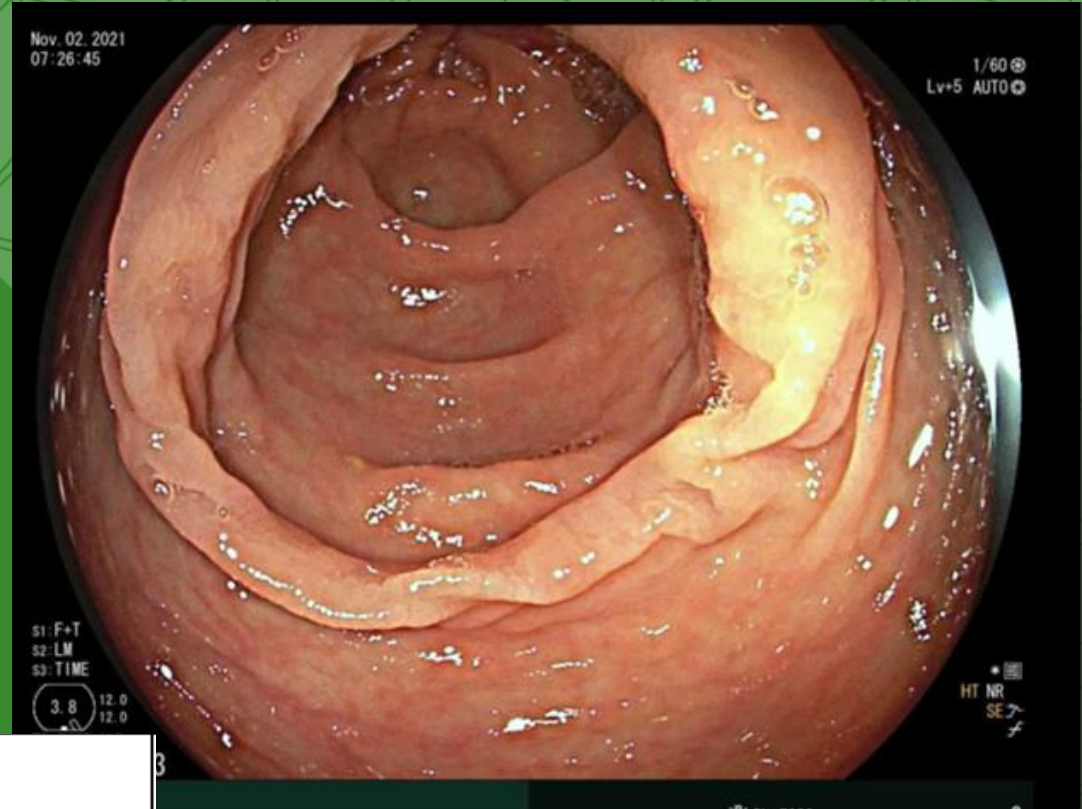


# Patients And Physicians Wanted To Be A Part Of It



Pick me!



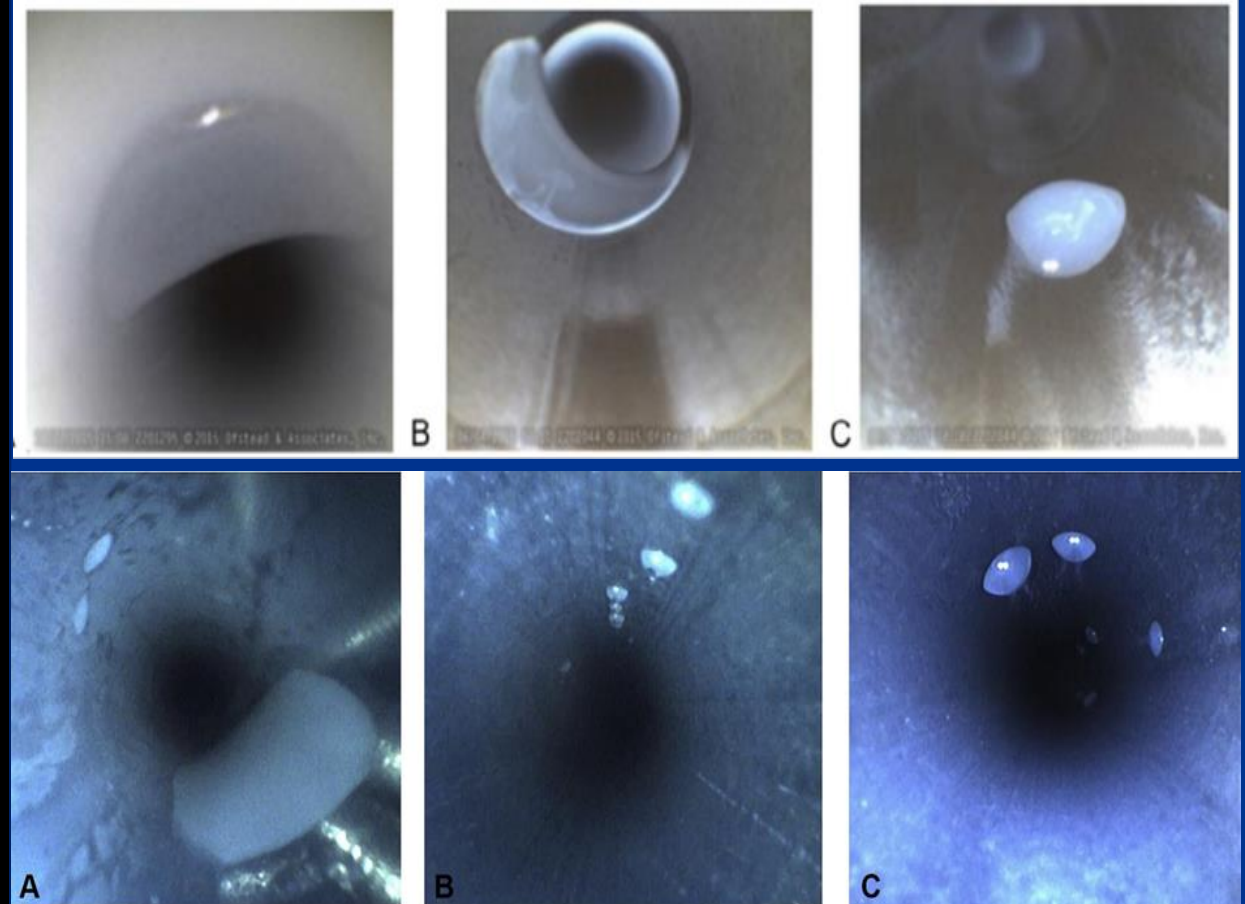
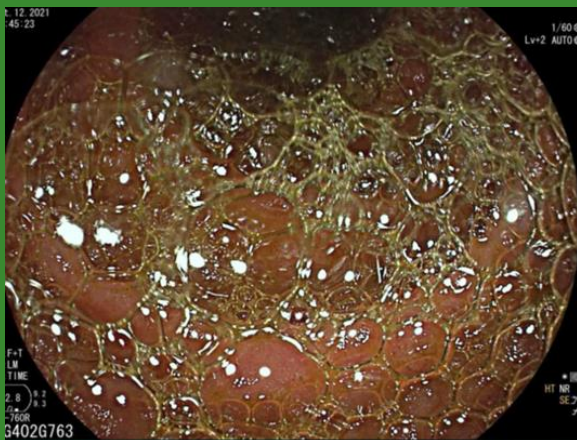
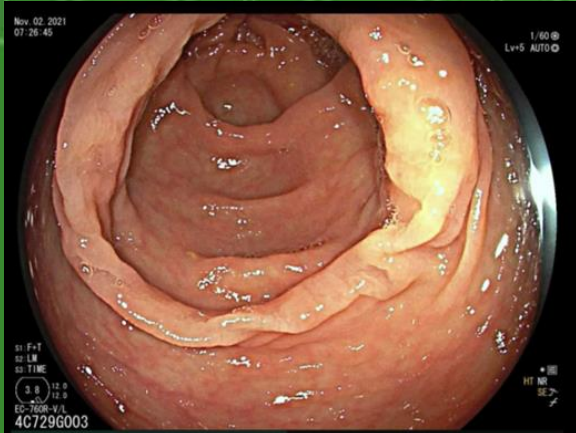


# We Can Have Bubble Elimination

# Without Risk of Infection

**Before**

**After**



# Have We Found Our White Whale?

**GI Ease –  
A Water-Soluble  
Alternative to  
Simethicone**

Thank you

