The use of low volume polyethylene glycol (PEG) based solution combined with ascorbic acid is associated with a higher rate of adenomas detected on the day of colonoscopy compared to magnesium citrate. Methods: We performed a retrospective comparative analysis of the efficacy of the low volume 2-L PEG based solution combined with ascorbic acid (administered between August and November 2012) versus 0.6-L magnesium citrate (administered between August and November 2011). Patients in both groups received a standard regimen of a stimulant laxative (Bisacodyl) and were given the same instructions. Efficacy referred to cecal intubation, polyp and adenoma, including right colon polyp, detection rates. Right sided colon was defined as cecum, ascending colon and hepatic flexure. All procedures were performed by a single endoscopist. The Fishner's exact test was used to analyze the results. A P value < 0.05 was considered to be statistically significant. Results: A total of 181 patients were included in this study. 87 patients received the low volume PEG bowel regimen and 94 received the magnesium citrate regimen. The median age was the same (60 y) for both groups. Female patients accounted for the majority of patients in the two groups, 63% in the PEG group and 71% in the magnesium citrate group. The rates of cecal intubation were similar, 100% in the PEG group, 98.5% in the magnesium citrate group, P = 1.00. There were no differences in the detection rates of overall polyps (52.9% vs. 50%, P = 0.07), histologically proven adenoma (39.1% vs. 36.1%, P = 0.70), and right sided adenoma (19.5% vs. 11.1%, P = 0.10) for the PEG and magnesium citrate groups respectively. Conclusion: Our study demonstrated no difference in adenoma detection rates between the low volume PEG based solution combined with ascorbic acid and the magnesium citrate bowel preparation methods.

Tu1368 A Randomized Prospective Trial Comparing Different Regimens of Polyethylene Glycol-Based Lavage and Sodium Picosulfate With Magnesium Citrate in the Preparation of Patients for Colonoscopy

Yoon Tae Jeen1, Woo Jin Lee2, Nark-Soon Park3, Sung Chul Park2, Hyuk Soon Choi1, Eun Sun Kim1, Bora Kemin1, Hong Sik Lee1, Hoon Jai Chun1, Soon Ho Um2, Chang Duck Kim1, Ho Sang Ryu1

1Division of Gastroenterology and Hepatology, Department of Internal Medicine, 2Institute of Digestive Disease and Nutrition, Korea University College of Medicine, Seoul, Republic of Korea; 3Division of Internal Medicine, Kangwon National University School of Medicine, Kangwon, Republic of Korea

Background Aims. Adequate bowel cleansing is essential for a high-quality, effective, and safe colonoscopy. There are rare reports that compare directly conventional polyethylene glycol (PEG) solution and sodium picosulfate with magnesium citrate (SPMC) for bowel preparation. The aim of this study is to compare the efficiency, safety, and tolerability of different regimens of SPMC and PEG solution Methods. A total of 200 patients undergoing elective colonoscopy were randomized into four groups with endoscopist was blinded to the regimen. The patients underwent strict diet restriction for 3 days before the procedure. Group A: PEG 4L at same morning on the day of the colonoscopy. Group B: split doses of PEG 4L, Group C: split doses of 2 sachets of SPMC, Group D: split doses of 3 sachets of SPMC. Results. The total Ottawa scale score was lowest in the 3 sachets of SPMC group and most highest in the 2 sachets of SPMC group. But there was no significant difference between groups. SPMC groups showed similar efficiency and tolerability compared with PEG groups. SPMC groups showed minor electrolyte imbalances and hyperosmolarity, but there were no significant adverse events. Conclusion: SPMC (both 2 sachets and 3 sachets) is as effective as high-volume PEG-electrolyte solution but has superior tolerance. It has fewer adverse events and is preferred by patients.

Tu1369 Low-Volume Polyethylene Glycol (PEG) Plus Ascorbic Acid Versus Standard PEG Solution for bowel Cleansing for Colonoscopy - a Randomized Controlled Study

Donggil Park1, Chang Mo Moon2, Young Gil Choe3, Dong-Hoon Yang2, Dong Soo Han3

1Internal Medicine, Kangbuk Samsung Hospital, Seoul, Republic of Korea; 2Internal Medicine, Asan Medical Center, University of Ulsan College of Medicine, Seoul, Republic of Korea; 3Internal Medicine, Hanyang University Guri Hospital, Guri, Republic of Korea

Background Adequate bowel preparation is essential for an accurate assessment of the entire colon during colonoscopy. Polyethylene glycol (PEG) has been widely used for its high effectiveness for bowel cleansing but generally hardly tolerated that many patients experience poor patient compliance. The aim of this study was designed to compare the 2-L PEG combined with ascorbic acid (PEG + Asc) with a standard 4-L PEG preparation in the efficacy, safety, and patient satisfaction of bowel cleansing. Methods: In a prospective, randomized, single-blind study, consenting adult participants undergoing elective colonoscopy receive 2-L PEG + Asc or 4-L PEG. All colonoscopies were scheduled in the morning and preparations were taken as split doses the evening before and early in the morning of bowel cleansing. Bowel cleansing was considered a success if the patient complied with PEG in 4-L patients and in 2-L patients at a 1-point scale in three different segments and a four-point overall grading. Patients’ views on the preparations were assessed using a questionnaire. Results. Overall, 132 patients received 2-L PEG + Asc and 119 patients received 4-L PEG. Successful bowel cleansing was achieved in 97.7% in the 2-L PEG + Asc group compared to 98.3% in the 4-L PEG group (statistically not significant). Patient compliance, acceptability, and satisfaction were better for the 2-L PEG + Asc group than for the 4-L PEG (P = 0.005, 0.01, and 0.01, respectively). In addition, overall side effects were less in 2-L PEG + Asc group (P = 0.048). However, there was no significant difference in the patient rating of taste between two groups. Conclusion: low-volume PEG + Asc is equally efficacious in bowel cleansing compared to standard 4-L PEG preparation, with the advantage of better safety and patient tolerability.

Tu1370 Bowel Preparation Before Colonoscopy With the Minimally Effective Dose of NaP

Tatsuya Koshitani*

Division of Gastroenterology, Yamato Kencbin Center, Kyoto, Japan

Background Oral sodium phosphate (NaP), which draws water into the bowel lumen and stimulates peristalsis and evacuation, is used for bowel preparation before colonoscopy. Reduction of NaP dose is desired because of potential adverse events including electrolyte disturbances and patient dissatisfaction. Methods: Forty-three patients requiring screening colonoscopy were studied. Patients with hypomagnesemia over 65 years of age, renal failure, or a history of enteric heart failure were excluded. Each patient was randomly allocated to receive either NaP 30 g (30 tablets) plus sodium picosulfate (0.75%, 10 ml), or NaP 50 g (50 tablets). NaP was administered at a rate of 3 tablets (NaP 3 g) or 5 tablets (NaP 5 g) every 15 minutes with 200 ml of water, beginning 5 hours before colonoscopy. Sodium picosulfate was taken with 200 ml of water in the evening before the procedure. The effectiveness of large-bowel cleansing was graded using the Ottawa scale by a single endoscopist who was blind to the dose of NaP. The time for completion of bowel preparation was defined as the time until clear stools were noted after NaP intake. Both groups were compared for effectiveness of large-bowel cleansing, time for completion of bowel preparation, and acceptability of the preparation. Differences with p values of less than 0.05 were considered statistically significant. Results. Twenty-three patients received NaP 30 g plus sodium picosulfate and twenty patients NaP 50 g. The Ottawa scale grade for NaP 30 g plus sodium picosulfate and NaP 50 g was 5.769 and 5.889 respectively. The mean time for completion of bowel preparation with NaP 30 g was 160.77 minutes and 185.00 minutes respectively. There were no significant differences in effectiveness of large-bowel cleansing (p = 0.758, Mann-Whitney U test) and time for completion of bowel preparation (p = 0.509, Student's t-test). Acceptability of bowel preparation with NaP 30 g plus sodium picosulfate and NaP 50 g was 83.3% and 80.0%, respectively. There was no significant difference in acceptability of the preparation (p = 0.886, Mann-Whitney U test). No adverse event occurred in any of the two groups. Conclusion. Oral NaP 30 g in combination with sodium picosulfate showed similar efficacy to that of oral NaP 50 g, and was acceptable to no more than 80% of patients. It can be useful for bowel preparation before colonoscopy.

Tu1371 Evaluation of Gastric Volume and Gastric Emptying by Ultrasonography During and After Bowel Preparation by Sodium Phosphate Tablets Before Sedation by Propofol

Romain Criot1, Vanessa Polin1, Ammar Oudjit3, Franck Henri2, Sarah Leblanc1, Chantal Delchambre2, Frederic Prat1, Stanislas Chassaud1

1Gastroenterology and endoscopy unit, CHU Cochin, Paris, France; 2Laboratoires MAYOLO SPIDLER, Chatou, France; 3Radiology Unit, Cochin Hospital, Paris, France

New bowel preparations have been developed to avoid the intake of 4 liters of PEG. Split bowel preparation the night before and the morning of the procedure improves the quality of the bowel preparation. Sodium phosphate (NaP) bowel preparation requires taking 20 tablets the evening before colonoscopy and 12 tablets the morning of the exam. This morning dose needs the ingestion of at least 750ml of clear fluids that is the reason why we checked the possibility of general anaesthesia by propofol in the next 2 hours (4 tablets per 30 minutes). The aim of our prospective study was to evaluate gastric emptying by ultrasonography during and after the second sequence of this bowel preparation in order to define the gastric volume and gastric emptying before general anaesthesia. Methods: This prospective study was referenced NCT01398098 (www.trial.gov) and performed in the endoscopy department of a