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Titel des Beitrags: Single-day sodium picosulfate and magnesium citrate versus split-dose polyethylene glycol for bowel cleansing prior to colonoscopy: A prospective randomized endoscopist-blinded trial.

Abstract: The intake of polyethylene glycol (PEG) prior colonoscopy is frequently associated with nausea and abdominal discomfort. The aim of this study was to investigate whether sodium picosulfate and magnesium citrate (PMC) is superior to a polyethylene glycol (PEG) preparation in regard to patient acceptance. Furthermore, it investigates possible differences in efficiency and patient safety. In a randomised, prospective, and endoscopist-blinded study patients were 1:1 randomized to either use PMC or 4-L PEG in order to prepare for colonoscopy. Cleansing regimes consisted of a split-dose administration in the PEG arm and standard administration in the PMC arm. Primary end point was proportion of patients evaluating the bowel preparation procedure as "very distressing," defined as >= 8 points on a 10-point numeric rating scale (NRS). Secondary end points were quality of bowel preparation and electrolyte parameters. PMC bowel-cleansing procedure was better tolerated compared with PEG (PMC(NRS<8) = 89.9% vs PEG(NRS<8) = 79.2%, P = 0.037). Mean declines in serum sodium (?Sodium(PEG) = -0.76 ± 3.07 mmol/L; P< 0.001), chloride (?Chloride(PEG) = -1.00 ± 3.22 vs
Chloride (PMC) = -3.49 ± 3.51 mmol/L; P < 0.001), and osmolality (\(\text{Osmolality(PEG)} = -4.23 \pm 6.82 \text{ vs } \text{Osmolality(PMC)} = -8.83 \pm 7.43 \text{ mosmol/kg; } P < 0.001\)) were higher in the PMC arm than in the PEG arm. Hyponatremia after bowel preparation occurred more often in PMC (21.2%) than in PEG (4.0%) (P < 0.001). Successful preparation was achieved more frequently in the PEG arm (42.9% vs 82.2%; P < 0.001). Standard picosulfate/magnesium citrate is better accepted than a split-dose PEG regimen. From the perspective of successful preparation and patients' safety, PEG is superior to PMC.