

COVERING THE COVER

High-dose vs low-dose proton pump inhibitors post endoscopic hemostasis in patients with bleeding peptic ulcers: A meta-analysis and meta-regression analysis

Sgourakis et al. conducted a meta-analysis and meta-regression analysis to evaluate studies using low-dose and high-dose proton pump inhibitors (PPIs) post endoscopic hemostasis. All randomized control trials regarding low-dose and high-dose PPI administration post endoscopy hemostasis published until December 2016 were identified. The studies included a total of 1651 participants. The authors found that low-dose PPI treatment is equally effective as high-dose PPI treatment post endoscopic arresting of bleeding. See 22-31.

Utility of a laboratory score in the prediction of altered autonomic nervous system function in autoimmune gastritis

The authors hypothesized that the "global score" (hemoglobin, mean corpuscular volume, gastrin, vitamin B₁₂, and chromogranin A) and "simple score" (hemoglobin, mean corpuscular volume, and gastrin) systems are helpful in differentiating autoimmune gastritis (AIG) patients with autonomic neuropathy from patients with normal autonomic nervous system function. The mean "simple" and "global" scores were significantly higher in patients with altered autonomic dysfunction than in those with normal autonomic function (3.55 ± 1.88 vs. 0.908 ± 0.409 , $p < 0.001$; 5.95 ± 2.07 vs. 2.46 ± 1.28 , $p < 0.001$; respectively). The authors concluded that instead of complex cardiovascular reflex tests, these scoring systems may help physicians while evaluating AIG patients to determine the existence of autonomic nerve dysfunction. See 32-5.

Comparison of the incidence patterns of colorectal cancers in four countries in the Middle East Cancer Consortium (Cyprus, Jordan, Israel, and Turkey) with the Surveillance, Epidemiology, and End Results Program in the United States

There is a marked variation in the incidence of colorectal cancer (CRC) worldwide between low-incidence areas in Asia/Africa and Western Europe, Australia-New Zealand, and North America. The highest incidence rates have historically been reported in Western coun-

tries; however, increasing trends have been observed in developing countries. The authors presented CRC incidence patterns in Cyprus, Israel, Jordan, and Turkey [Middle East Cancer Consortium (MECC) countries]. They analyzed 2005-2010 CRC data of population-based registries; calculated crude and age standardized rates for CRC, colon, and rectum subsites; and noted annual percentage changes for trends. In the MECC countries, there were both high- and low-risk populations for CRCs. The authors concluded that increasing trends in low-risk populations are alarming. They also concluded that the implementation of tailored primary and secondary prevention programs in the region is obvious. See 36-44.

Relationship between alanine aminotransferase levels and metabolic syndrome in a Korean population

A well-designed study conducted in Korea is present in this issue of the Turkish Journal of Gastroenterology. Lee et al. aimed to cross-sectionally and longitudinally examine whether serum alanine aminotransferase (ALT) levels are associated with metabolic syndrome and its associated components in a Korean population ($n=31,832$). The results of the study showed that serum ALT levels were positively associated with metabolic syndrome and its components (fasting glucose levels, triglyceride levels, blood pressure, and waist circumference), and that this correlation remained statistically significant after adjustments for gender, age, serum γ -glutamyltransferase level, serum uric acid level, smoking status, and log-transformed alcohol consumption. They concluded that elevated serum ALT levels may be a novel biomarker for metabolic syndrome development in a Korean population. See 52-60.

Polyethylene glycol 3350 (MiraLAX®)+1.9 L sports drink (Gatorade®)+2 tablets of bisacodyl produces an inferior bowel preparation for colonoscopy than polyethylene glycol-ascorbic acid (MoviPrep®)

Some patients cannot complete their bowel preparation owing to a large volume of consumption or poor palatability. In an effort to improve patient tolerability and adherence, polyethylene glycol-ascorbic acid (PEG-AA) at a reduced volume of 2 L is now available,

with ascorbic acid acting as an additional cathartic and flavoring agent. The present study aimed to compare the efficacy, patient satisfaction, and effects of serum electrolytes between PEG 3350 (MiraLAX®)+1.9 L sports drink (Gatorade®)+2 tablets of bisacodyl (PEG-SD-B, n=74) with 2 L PEG-AA (n=76)-based regimens. The study used a two-arm, single-blinded, prospective, block randomized controlled trial. In the PEG-SD-B group, 61.3% of the patients had adequate bowel cleansing compared to 84.6% of the patients in the PEG-AA group, which was statistically significant ($p=0.003$). The study showed that PEG-AA produced a higher quality bowel preparation than PEG-SD-B with no significant difference in patient tolerability or satisfaction. In conclusion, the authors recommended the use of PEG-AA over a PEG 3350-based bowel preparation regimen. See 67-74.

Shorter waiting times from receiving education to undergoing colonoscopy can improve the quality of bowel preparation: a randomized controlled trial

The present prospective, investigator-blinded, randomized controlled study aimed to evaluate the quality of bowel preparation according to waiting times from receiving education to undergoing colonoscopy. Patients were divided into two groups: within 2 weeks (group A, n=64) or more than 2 weeks (group B, n=66) from receiving education about bowel preparation to undergoing colonoscopy. The primary outcome was the quality of bowel preparation as assessed by the Boston Bowel Preparation Scale (BBPS). The secondary outcome was the polyp and adenoma detection rates. A total of 130 patients were enrolled. The total BBPS score was significantly higher in group A than in group B. The rates of polyp and adenoma detection were slightly higher in group A than in group B (polyps, 42.2% vs 38.5%, $p=0.667$ and adenoma, 31.2% vs 22.7%, $p=0.275$; respectively). The study demonstrated that shorter waiting times from receiving education to undergoing colonoscopy can improve the quality of bowel preparation. See 75-81.

A simplified technique of esophageal self-expandable metallic stent placement without fluoroscopic and endoscopic guidance in esophageal carcinoma

Self-expandable metallic stent (SEMS) placement is imperative in the amelioration of dysphagia by lu-

minization, thereby enhancing the quality of life in patients with esophageal malignancy. Routinely, SEMS placement is guided under either fluoroscopic or endoscopic control. However, limited accessibility of fluoroscopy and the hazard of radiation exposure are two main pitfalls pertaining to fluoroscopic use. Through SEMS placement under an endoscopic guide to swamp these limitations, it has a constraint of affecting patient compliance during the procedure, thereby demanding the use of a nasogastroscope or an ultra-thin scope. The other disadvantage is that it requires two experts to perform the procedure. The authors developed a simplified technique of SEMS placement without a fluoroscopic guide and with limited endoscopic convention to only measure the extent of growth and not during the stent deployment. They found that the prominent advantage of the new technique is the steady reduction in procedure duration with a high technical success rate (100%). A few additional advantages that improved the value of the new technique were its technical ease, cost effectiveness, and the absence of exposure to hazardous radiation, thus making it a day-care procedure. See 82-8.

Post-transplant malignancies in pediatric liver transplant recipients: Experience of two centers in Turkey

The present study aimed to evaluate the prognosis and prevalence of de novo malignancy in a pediatric population after solid organ transplantation. The study group comprised 206 pediatric liver transplant patients with no history of cancer, including hepatocellular carcinoma, and who underwent a liver transplantation at two centers between 1997 and 2015. De novo cancer was diagnosed in 13 (6.3%) of the 206 patients. Post-transplant lymphoproliferative disease occurred in 7 of the 13 (53.8%) patients and other malignancies occurred in 6 of the 13 patients (46.2%). All patients received cyclosporine as first-line treatment until 2004. Regarding the incidence of malignancies before and after 2004, they were detected in 2.08% of patients who received cyclosporine and in 8.5% of those who received tacrolimus. No cases of malignancy were found among the patients who received sirolimus. The study suggested that the smallest possible dose of immunosuppressive drugs capable of preventing organ rejection should be administered, with the aim of combating future malignancies. See 89-93.

Evaluation of mTOR signaling pathway proteins in rat gastric mucosa exposed to sulfite and ghrelin

Certain cellular processes such as tumor angiogenesis and development, adipogenesis, T- lymphocyte activation, and insulin resistance activate the mTOR pathway while some diseases such as cancer and type 2 diabetes deregulate the mTOR pathway. Ercan et al. evaluated the expression of mTOR signaling constituents (p-p70S6K, p-mTOR, and p-tuberin) in rat gastric mucosa and compared the results in sulfite- and

sulfite+ghrelin-exposed groups. Rats were divided into three groups: control group, sulfite group, and sulfite+ghrelin group. Sulfite was administered via gavage, and ghrelin was intraperitoneally administered. Immunohistochemistry was used for detecting mTOR signaling pathway components. The authors found that the expression of gastric mucosa exposed to either sulfite or sulfite+ghrelin changed tuberin expression, which is a negative regulator of the mTOR signaling pathway. See 94-100.