



Covering the Cover

Comparison of the effects of esomeprazole 40 mg, rabeprazole 20 mg, lansoprazole 30 mg, and pantoprazole 40 mg on intragastric pH in extensive metabolizer patients with gastroesophageal reflux disease

Gastroesophageal reflux disease (GERD) is highly prevalent in the world and different groups of proton pump inhibitors (ppi) are mostly effective for relieving the symptoms, however comparative studies for different ppi groups have been done mostly by comparing two different drugs. Present study on this issue of TJG, Çelebi et al. compared four different groups of ppis available on the market (esomeprazole 40 mg, rabeprazole 20 mg, lansoprazole 30 mg, and pantoprazole 40 mg) in GERD patients who are H. Pylori-negative and extensive metabolizers of ppis, tested by CYP2C19 mutation analysis. They performed 24 hr intragastric pH-meter analysis before starting ppi, 24 hr after the first dose and at the fifth day of ongoing ppi treatment to 56 patients in which 14 patients enrolled in each group. The authors found out that amid basal intragastric pH values were not different between the groups, first day measurements of intragastric pH>4 time intervals were lesser in patients treated with pantoprazole than patients treated with esomeprazole, rabeprazole and lansoprazole. They also found out that faster action for achieving the pH>4 was with esomeprazole treatment. However on day five, time periods of intragastric pH>4 were not different between the groups. One interesting finding of this study is lansoprazole found to be as effective as the other newer drugs in terms of reaching the expected pH values. The other interesting finding is pantoprazole seems to be lesser effective on the day one but achieved the effective levels on day 5 as well. Çelebi et al. concluded that one strength of present study is study population, which is a homogeneous group of patients who are extensive metabolizer of ppis. Other interesting finding of present study is lesser immediate effect of pantoprazole which should

be taken into account while considering on demand treatment for GERD patients. See page 408.

Evaluation of the effectiveness of biofeedback therapy for functional constipation in children

Biofeedback therapy is frequently used for adult patients who have anal incontinence or defecation problems. Present study in this issue of TJG deals with pediatric population in which Jarzebicka et al. presented the biofeedback therapy results of 44 pediatric patients (mean Age 12 years) who have pelvic floor dyssnergia (PFD). Biofeedback is a behavioral therapy by conditioning patients to learn how to use their certain muscles that have a role in defecation, lasts for several years in order to have beneficial effect. Clinical improvement was achieved in 38 (86%) patients and therapy lasted for a mean of 7.5 years (1-15 years). Although this is an exacting treatment schedule, besides routine treatments of diet and medication, biofeedback therapy should be considered for pediatric patients who have constipation with PFD. See page 433.

Effect of SIRS and sepsis on mortality in alcoholic hepatitis: A systematic review and meta-analysis

Alcoholic hepatitis is a fatal condition which involves multiple factors regarding the mortality and needs effective urgent treatment. Jaruvongvanich et al. made a MEDLINE and EMBASE search for alcoholic hepatitis with sepsis and SIRS syndrome and recruited the suitable studies by the PROSPERO guideline instructions. They found out six studies involving 1,264 patients (of whom 507 had SIRS) and four studies involving 57,529 patients (of whom 1,449 had sepsis). Systemic inflammatory response syndrome and sepsis were both significantly associated with higher mortality. They concluded that not only sepsis is related with mortality but also SIRS syndrome is a highly significant independent factor for mortality of AH patients. Therefore cascade of SIRS should be targeted in order to decrease the fatality

rates in those patients. I think this finding is not new but this meta-analysis gathers the whole data and opens a new way to targeted therapies to SIRS pathways. See page 458.

Gastric myoelectrical activity abnormalities of electrogastrography in patients with functional dyspepsia

Functional dyspepsia (FD) has a wide spectrum of pathogenesis involving gastric motor to psychosomatic abnormalities. Kayar et al. looked for the gastric motor abnormalities by using electrogastrography (EGG) in 30 patients with FD during the pre- and post-prandial period and compared these changes with healthy volunteers. They found that in pre- and post-prandial period FD patients have lower incidence of dominant frequency amplitudes and higher rates of bradygastria and tachygastria whereas 33% of the FD patients have normal findings. Present study demonstrates that although one third of the FD patients may have normal findings, EGG can be a valuable test not only for the diagnosis but also the follow up of these patients however validated measurements are needed for Turkish population. See page 415.

Efficacy of synbiotic, probiotic, and prebiotic treatments for irritable bowel syndrome in children: A randomized controlled trial

Irritable bowel disease is although rare condition in pediatric population needs to be treated effectively in order to increase life quality. Baştürk et al. presented a randomized controlled study in this issue of TJG, in which they looked for the efficacy of synbiotic, probiotic, and prebiotic treatments in pediatric irritable bowel syndrome (IBS) patients. The authors randomized 71 pediatric IBS patients and treated as the first group (23 patients) received synbiotic treatment [5×10^9 colony forming units (CFU) of *B. lactis* B94 and 900 mg inulin]; the second group (24 patients) received probiotic treatment (5×10^9 CFU *B. lactis* B94), and the third group (24 patients) received prebiotic treatment (900 mg inulin) twice daily for 4 weeks. Finally, they concluded that the group which had symbiotic treatment had best recovery rates and the symptom decrease, and can be offered to pediatric patients with IBS. See page 439.

Variceal bleeding in cirrhotic patients: What is the best prognostic score?

Variceal bleeding still has high mortality despite developments in intensive care facilities and interventional treatments. In this issue of TJG, Asmaa and Morsy evaluated the multiple prognostic factors and scores in 120 patients with acute variceal bleeding from a single center experience. Regarding the clinical factors, they found out that advanced age, presence of encephalopathy, rebleeding, and higher serum bilirubin were all independent prognostic factors of hospital mortality. Regarding the studied prognostic scores, the AIMS65 score was better than Child-Turcotte-Pugh (CTP) score, the model for end-stage liver disease (MELD) score, the acute physiology and chronic health evaluation II (APACHE II) score, and the sepsis-associated organ failure assessment (SOFA) score for predicting the hospi-

tal mortality in patients with acute variceal bleeding. AIMS65 score is a new scoring system which includes level of albumin <3.0 g/dL (A), international normalized ratio (INR) >1.5 , mental status alteration (M), systolic blood pressure ≤ 90 mm Hg (S), and age >65 years. In clinical practice, there are a lot of scoring systems for predicting the mortality in cirrhotic patients with acute variceal bleeding, but I think that best prognostic score is the one which clinician is familiar to use it in clinical practice, but AIMS65 needs to be re-evaluated by different groups and multi-center studies. See page 464.

Clinical outcomes of endoscopic surveillance for gastric ulcers in populations with a high prevalence of gastric cancer

Second look gastroscopy should be performed in gastric ulcers amid biopsy findings show benign features in gastric ulcers due to their malignant potential. However, this recommendation is not clear for NSAID related or *H. pylori* negative gastric ulcers. Present study tries to find out an answer to this question? Authors from Korea retrospectively recruited the data of 599 patients who were diagnosed gastric ulcer and had surveillance gastroscopy in 3 months and looked for the number of the patients diagnosed malign ulcer in the surveillance gastroscopy. They found out that 15 out of 599 patients have (2.5%) histologically malignant based on the first biopsy whereas nine (1.5%) patients had malignant ulcers on surveillance endoscopy, and all of these had atypia or dysplasia on the first biopsy and eight of them had malignant endoscopic features such as irregular and elevated margins on the first endoscopy. They concluded that although present study has some limitations of being retrospective and single center, if a gastric ulcer has suspected malignant endoscopic findings with biopsy results of atypia or dysplasia, there is no need to wait for the second look endoscopy and send it for surgery. I think these findings are interesting and informative but needs prospective multicenter studies before having a role in routine practice. See page 421.

Pediatric small bowel transplantation: A single-center experience from Turkey

Intestinal transplantation is not a common surgical procedure in the pediatric population so that case series for sharing the experience have higher priority in the literature. This is a very important data, giving the outcome of pediatric intestinal transplanted patients from the only center performing intestinal transplantation in Turkey. Tuğmen et al. presented 6 pediatric patients between the ages of 9 months to 17 years whom have one jejunal and six jejuno-ileal segment transplantation. They gave the detailed surgical procedure, early and late complications and survival results in which acute rejection rate was %57 in 2 months and 1-year patient and graft survival rates were 71% and 71%, respectively. Besides postoperative complications bacterial and fungal infections are major concerns in those patients who had intestinal transplantation. I think this study has a key information for the ones who are interested on this subject and should be read carefully. See page 428.

Etiologies, outcomes, and prognostic factors of pediatric acute liver failure: A single center's experience in Turkey

One last study presented from pediatric gastroenterology is a case series of acute liver failure pediatric patients from a single center experience in Turkey. Özçay et al. presented 91 pediatric patients with acute liver failure presented in 15 years period, in whom major etiologic factors are viral hepatitis, mostly viral hepatitis A and indetermined causes. Authors presented patients in two groups; group 1 patients are spontaneously recovered patients whereas group 2 patients are transplanted or died. Overall spontaneous recovery rate was 40.6%. Thirty-two out of 91 (35.2%) patients were underwent liver transplantation after the diagnosis. Hepatic encephalopathy grade 3-4

on admission and during follow-up and high Pediatric Risk of Mortality (PRISM) and Pediatric End-Stage Liver Disease (PELD) scores within the first 24 h were related with poor prognosis. Finally they concluded that liver transplantation is the only curative treatment for patients with poor prognoses and resulted in good survival rates in which 1-, 5-, and 10-year survival rates of 81.3%, 81.3%, and 75%, respectively. This data's priority comes from the longer and strict follow up from a single center's experience from Turkey. See page 450.

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