



Covering the Cover

Continued use of low-dose aspirin may increase the risk of bleeding after gastrointestinal endoscopic submucosal dissection: A meta-analysis

Endoscopic submucosal dissection (ESD) is an advanced therapeutic endoscopic technique for superficial gastrointestinal neoplasms that has recently been increasingly used because of its curative potential and minimally invasive nature. Bleeding is one of the most important complications of ESD, particularly in gastric lesions. Post-procedural bleeding risk could be an issue for patients who had to continue antiplatelet treatment (APT) for thromboembolism prophylaxis. It is controversial whether the continuous use of low-dose aspirin (LDA) increases the bleeding risk after gastrointestinal ESD. In this study, Wu et al. studied the relationship between post-procedural hemorrhage and continuous therapy with LDA. They systematically searched databases and conducted a meta-analysis, aiming to determine whether patients undergoing ESD for gastrointestinal lesions are at risk of bleeding after continued LDA use. Collected literature compared the risk of bleeding from continued LDA use or interrupted LDA use with the risk from no anticoagulant/APT group. Five nonrandomized controlled studies in the meta-analysis suggested that the incidence of post-ESD bleeding in the gastrointestinal tract was not different between those who never used LDA and those who had interrupted LDA use. However, the incidence was higher in those who had continued LDA use. All groups, namely, continued LDA use, interrupted LDA use, and no anticoagulant/APT group showed equal rates of en bloc resection. Thromboembolic events have been reported in patients who stop aspirin use in some studies. Therefore, they concluded that an individualized approach that takes the risk and benefit of patients into full consideration should be applied and that patients treated with APT should be carefully monitored for post-ESD bleeding. Further controlled trials are required using larger, high-quality randomized samples. See page 329-36.

Is glycogenic acanthosis a predictor of insulin resistance and metabolic syndrome?

Glycogenic acanthosis (GA) of the esophagus is characterized by multifocal gray-white plaques of the hyperplastic squamous epithelium with abundant intracellular glycogen deposits. It is a common benign entity and is detected in 3.5% of patients undergoing endoscopy. Metabolic syndrome (MetS) is an important risk factor in the development of multiple diseases, mainly type 2 diabetes and coronary heart disease. Insulin resistance (IR) may play a pivotal role in MetS pathogenesis and is characterized by a decreased biological response to insulin. Insulin resistance may be the cause of glycogen deposits in the squamous epithelium. Tahtacı et al. aimed to investigate the relationship of GA with MetS and IR. They found that the proportion of patients with IR and MetS was significantly higher in patients with GA than in controls (53.3% vs. 13.3%, $p=0.003$ and 53.3% vs. 23.3%, $p=0.034$, respectively). They conclude that IR and MetS were significantly associated with the presence of GA. See page 337-41.

Increased occurrence of brain abscesses in cirrhotic patients: A population-based 3-year follow-up study

There is an increased tendency to infection in cirrhotic patients because of decreased immunity, increased bacterial translocation, malnutrition, and the use of portosystemic shunts. Although many infections are seen in cirrhotic patients, Chen et al. from Taiwan studied the frequency of life-threatening brain abscesses in this group of patients. In this study, 143 brain abscess cases were identified from more than 40,000 cirrhotic patients and age- and sex-matched controls in the National Health Insurance Database. Statistically a significant portion of those with brain abscesses had cirrhosis. The severity of cirrhosis was positively correlated with the risk of occurrence of brain abscesses. From this study, we can conclude that brain abscesses should be considered in the differential diagnosis of patients pre-

senting with hepatic encephalopathy, particularly for decompensated cirrhotic patients. See page 342-6.

Platelet count to splenic diameter ratio and other noninvasive markers as predictors of esophageal varices in patients with liver cirrhosis

It is recommended that upper gastrointestinal endoscopy be performed for all cirrhotic patients to screen the presence of esophageal varices because esophageal variceal bleeding is one of the life threatening complications of portal hypertension. Upper gastrointestinal endoscopy for screening purposes in each patient with liver cirrhosis is not feasible in developing countries. This study aimed to assess the accuracy of noninvasive markers [platelet count, portal vein diameter, spleen diameter using transabdominal ultrasound, and platelet count/spleen diameter ratio (PC/SD ratio)] for determining existing esophageal varices. In this study conducted on 150 patients, they found that the PC/SD ratio was the most reliable indicator for the presence of varices. The platelet count and spleen diameter were also good indicators. The portal vein diameter was not a good predictor for esophageal varices. They concluded that noninvasive parameters is easy to obtain and can be used with other markers to identify patients at high risk for developing esophageal varices. See page 347-52.

Regular hospital visits improve the prognosis of hepatocellular carcinoma after the initial diagnosis: A single regional community hospital study

Hepatocellular carcinoma (HCC) is the fifth most common cancer worldwide and the second leading cause of cancer-related deaths. HCC-related mortality can be reduced by surveillance programs. Small HCCs such as those that can be detected by surveillance can be cured with appropriate treatment. Patients without the opportunity to visit a hospital have a delay in the detection of HCC. Watanabe et al. from Japan aimed to investigate the relationship between regular hospital visits and HCC prognosis. They found that visits to hepatologists appeared to improve the prognosis of initial HCC. This indicates that surveillance methods for all clinicians should be established. See page 353-60.

Determination of bacterial groups in gut microbiota and endotoxin levels in patients with nonalcoholic steatohepatitis

Nonalcoholic fatty liver disease (NAFLD) includes a spectrum of hepatic pathologies ranging from simple steatosis to nonalcoholic steatohepatitis (NASH) and fibrosis. Although data on the relationship between gut microbiota and NAFLD pathogenesis have been accumulating, it has not yet been fully documented. Changes in the intestinal microbial content, increases in intestinal permeability and endotoxin amounts might be effective in NAFLD pathogenesis. Because there are only a few studies addressing NASH microbiota, Ozkul et al. from Turkey investigated quantitative changes in bacteria types in fecal microbiota in biopsy-proven NASH patients and healthy controls.

They showed that irrespective of the BMI, NASH patients had significantly lower levels of Akkermansia muciniphila, which has been shown to protect gut barrier function, and higher levels of Enterobacteriaceae, whose members are known to produce alcohol as a fermentation product, which promotes gut permeability and leads to metabolic endotoxemia. In addition, Enterobacteriaceae levels were significantly higher in patients with F2 fibrosis than in those with F0-F1 fibrosis, suggesting a strong relationship between Enterobacteriaceae levels and the liver pathology. Lactobacillus reuteri was abundant among other Lactobacillus species in the patient group. Bifidobacterium infantis was found in the patients' feces but not in the controls' feces. Moreover, Ozkul et al. found that serum CRP and serum endotoxin levels were significantly higher in NASH patients, which supports the possibly increased gut bacterial translocation in NASH patients. Decreased A. muciniphila and increased Enterobacteriaceae levels might be a prototype of intestinal microbiota in NASH patients. Further metagenomics approaches are needed to better characterize the differences in gut microbiota in this population. See page 361-9.

Endoscopic ultrasound and endoscopic ultrasound-guided fine needle aspiration in the diagnosis of diffuse gastrointestinal lesions with inconclusive endoscopic biopsies

In subepithelial lesions, standard endoscopic biopsy sampling often yields false-negative results. Endoscopic ultrasound (EUS) without sampling is relatively accurate in discriminating malignant conditions from benign conditions. EUS-guided fine needle aspiration (EUS-FNA) is another method of tissue acquisition from subepithelial lesions, particularly when conventional biopsy technique is inconclusive. Okasha et al. evaluated the accuracy of EUS and EUS-FNA in the diagnosis of diffuse gastrointestinal lesions with inconclusive endoscopic biopsies. This study showed that EUS had a sensitivity of 94.4%, specificity of 65%, positive predictive value (PPV) of 90.7%, and negative predictive value (NPV) of 45.1% with a p-value <0.0001 in diagnosing malignant lesions. EUS-FNA had a sensitivity of 83%, specificity of 100%, PPV of 100%, and NPV of 61.9% with a p-value <0.0001 in diagnostic malignant lesions. EUS-FNA is an accurate procedure in the diagnosis of endoscopic biopsy-negative diffuse or circumferential gastrointestinal lesions. See page 370-6.

Effects of long-term synbiotic supplementation in addition to lifestyle changes in children with obesity-related nonalcoholic fatty liver disease

Nonalcoholic fatty liver disease (NAFLD) in children is becoming a major health concern. Insulin resistance, oxidative stress, unfavorable lifestyle, gut microbiota, and gut-liver axis dysfunction have been shown to be critical for disease progression. Lifestyle interventions (i.e., diet and exercise) represent the mainstay treatment; however, compliance in children is poor. The modulation of the interaction between gut microbiota and the liver has become the main target for managing NAFLD

in recent years. In this article, Çakır et al. analyzed the efficacy of a novel treatment approach, long-term symbiotic supplementation, and lifestyle changes in children with NAFLD. They found that the fatty liver grade and total cholesterol, low-density lipoprotein, and TNF- α and C-reactive protein levels were decreased after synbiotic supplementation. They concluded that synbiotic supplementation in addition to lifestyle changes is effective in children with NAFLD. See page 377-83.

Laparoscopic proctocolectomy with ileal j pouch-anal anastomosis in children

Total proctocolectomy is performed in children for conditions such as familial adenomatous polyposis (FAP) and ulcerative colitis (UC) to improve symptoms and prevent malignant transformation. Laparoscopic surgery has many advantages as a minimally invasive procedure. After total colectomy, severe incontinence that could impair the quality of life can be seen. There are few studies on minimally invasive approaches and their results in the management of FAP and inflammatory bowel disease in children. Ates et al. investigated the frequency of postoperative complications, particularly anal incontinence, after laparoscopic total proctocolectomy with ileal j pouch-anal anastomosis (TP IPAA) for UC or FAP in children. In their retrospective evaluation of 11 patient series, they found that incontinence scores and surgical outcomes of laparoscopic TP IPAA were satisfactory for children. Laparoscopic TP IPAA might be the best surgical choice because it provides good continence with low complication rates. See page 384-7.

Investigation of the efficacy of synbiotics in the treatment of functional constipation in children: a randomized double-blind, placebo-controlled study

Functional constipation is one of most commonly observed gastrointestinal diseases during childhood and is threatening to become a major public health problem worldwide. An im-

proved understanding of host-microbiota interactions in functional bowel diseases is important not only for its pathogenesis but also for enabling the therapeutic modulation of microbiota. Probiotics have been demonstrated to be effective in many studies, particularly for treating constipation in adults. Baştürk et al. aimed to demonstrate the efficacy of synbiotic treatment in children with functional constipation. Their results showed significant improvement in the weekly number of defecations, abdominal pain, painful defecation, and pediatric Bristol scale ($p \leq 0.001$) in the synbiotic group. They concluded that the use of synbiotics for treating functional constipation in children is beneficial. However, because of the recurrence of the disease at the end of treatment, further studies are required for the determination of the duration of synbiotic treatment. See page 388-93.

Methylprednisolone prevents bacterial translocation in thioacetamide-induced liver failure in rats

In liver failure, there is increased translocation of bacteria and bacterial products from the gut. Many experimental studies have reported that intestinal oxidative stress plays a key role in disrupting intestinal barrier function. Methylprednisolone (MP), which is a synthetic glucocorticoid hormone and the most commonly used anti-inflammatory and antioxidant drug, may reduce oxidative stress. In this study, Harputluoğlu et al. investigated the effects of MP on intestinal oxidative damage and bacterial translocation in a thioacetamide-induced liver failure model in rats. Their findings suggest that MP reduces bacterial translocation by reducing intestinal inflammation and preventing intestinal oxidative damage in this model of acute liver failure. See page 394-400.

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