



## Covering the Cover

### **Role of toll-like receptor 10 gene polymorphism and gastric mucosal pattern in patients with chronic gastritis**

*Helicobacter pylori* is relatively common in the gastric mucosa of human beings. Whether they cause mild or severe inflammation or other diseases may depend on many complex factors. Toll-like receptor (TLR) 10 *rs10004195* polymorphism is among one of these factors. *H. pylori* stimulates the host TLRs. Single nucleotide polymorphism (SNP) of TLRs is related to the manipulation of regulatory cytokines and implicated in the varied outcomes and disease progression. TLR10 *rs10004195* polymorphism studies were conducted in various populations. In this study conducted in Thailand, TLR10 *rs10004195* polymorphism in the Thai population was analyzed and found that the presence of TLR10 *rs10004195*, A/T heterozygous, and T/T homozygous genotypes is associated with types 1, 2, and 3 (mild inflammation), respectively, whereas that of the A/A homozygous genotype is associated with types 4 and 5 (severe inflammation). This indicates that the A/A homozygous genotype contributes to severe inflammation in *H. pylori*-associated gastritis in Thai patients. See page 243.

### **Significance of selected morphological and histopathological parameters of colon tumors as prognostic factors of cancer spread**

Colorectal cancer (CRC) is the second and third most frequent cause of mortality in male and female cancer patients, respectively. The high and sustained increase in the morbidity of CRC constitutes a crucial clinical problem and suggests the need for extensive multidisciplinary research on the biology of the malignancy. One direction for this research is the identification of prognostic factors linked to the outcome of CRC. Among these factors, Zbigniew K. Kamocki et al. from Poland aimed to verify the usefulness of four characteristics of colon tumors as predictors of lymph node and distant metastases: right- or left-sided location, circumferential location, histological type, and histological grade (G-parameter). They found out that the circumferential location of primary colon tumors was a significant predictor of the metastatic potential. Besides, pre-

operative identification of primary colon tumor located on the antimesenteric side necessitated evaluation for the presence of liver metastases and careful postoperative monitoring. See page 248.

### **Extracellular Matrix Protein 1 Gene rs3737240 Single Nucleotide Polymorphism is Associated with Ulcerative Colitis in Turkish Patients**

Ulcerative colitis (UC) and CD are chronic inflammatory diseases. Genetic, immunologic, and microbial factors play an important role in their pathogenesis. Since they have chronic nature and cause many morbidity and mortalities, tremendous amount of investigations are conducted in this regard. They are believed to have genetic predisposition; in this study, Gupse Adalı et al. aimed to determine the relationship between extracellular matrix protein 1 (ECM1) gene *rs3737240* SNP and UC in a group of Turkish patients. ECM1, a gene related to mucosal barrier function, has shown to be associated with UC. Inflammation is limited to the mucosal surface in UC, and a defective mucosal barrier has gained importance in the pathogenesis of the disease; numerous studies on IBD-associated genes that regulate the intestinal barrier have been conducted in recent years. Among these genes, ECM1 is an important candidate. Their study demonstrated for the first time that there was a significant relation between the ECM1 *rs3737240* SNP and UC in a Turkish population. Despite the small size of the study, it should be considered the first step of future studies with larger populations. See page 254.

### **Updating predictors of endoscopic recurrence after ileocolic resection for Crohn Disease**

Within 15 years of diagnosis, 70% patients with Crohn Disease (CD) undergo surgery. Despite the huge number of surgery cases, unfortunately, it is not a cure for CD. Postoperative follow-up strategy therefore plays a vital role in these patients. In this article, Sara Monteiro et al. from Portugal attempted to identify possible predicting factors in patients who underwent ileocolic resection due to CD. Based on the Rutgeerts score, they formed two groups—nonendoscopic recurrence (Rutgeerts i0/i1) and endoscopic recurrence (Rutgeerts  $\geq$ i2). Subsequently, with

multivariate logistic regression analysis, they attempted to find possible predictors for ER (endoscopic recurrence). The perianal disease and shorter duration of CD were found to be the only ER predictors. See page 260.

### **Risk factors of the rebleeding according to the patterns of non-variceal upper gastrointestinal bleeding**

The incidence of upper gastrointestinal bleeding has been decreasing over the past two decades. Despite the advances in endoscopic management in the control of bleeding for non-variceal upper gastrointestinal bleeding (NGIB), the bleeding rate has not decreased and carries an overall mortality of 5%-11%. In this retrospective study, Ji Hyung Nam et al. attempted to explore risk factors that would predict rebleeding in NGIB patients. They reviewed medical records of the clinical factors including age, sex, comorbidities, history of anticoagulants or nonsteroidal anti-inflammatory drug (NSAID) intake, admission status (outpatient or in-hospital), and initial hemoglobin level. Endoscopic factors, such as location and bleeding status, rebleeding, and mortality, were also investigated. Ulcer with Forrest Ib was found to be significantly associated with rebleeding ( $p=0.039$ ), whereas the risk of rebleeding was not increased in Forrest Ia, IIa. In addition, it tended to be lower if the endoscopic managements were performed by the attending staff rather than by training fellow ( $p=0.104$ ). It is important that endoscopic treatments should be performed more carefully in patients with active oozing bleeding occurred during hospitalization. See page 266.

### **Role of TNF- $\alpha$ -308G/A gene polymorphism in gastric cancer risk: a case control study and meta-analysis**

Gastric cancer (GC) is the third most common cause of cancer-related death in the world, and it remains difficult to cure, primarily because most patients present with advanced disease. Although the exact etiology of GC development is unclear, several factors, including genetic and environmental, have been identified as risk factors. An SNP in the promoter region of tumor necrosis factor- $\alpha$  (*TNF- $\alpha$* ) (-308G>A) has been associated with a higher risk of GC. In this Chinese cohort study, authors evaluated the possible association of *TNF- $\alpha$*  with GC and performed a meta-analysis to find the association between *TNF- $\alpha$*  gene polymorphisms and GC. Prevalence of the heterozygous mutant (GA) and minor allele (A) were found to be significantly higher in GC cases compared to healthy controls (GA:  $p<0.0001$ , odds ratio (OR)=4.90; A:  $p<0.0001$ , OR=2.84). In the meta-analysis, a significant association of the *TNF- $\alpha$*  polymorphism (-308G>A) with susceptibility to GC was only found in the Caucasian population among other ethnicities (A vs. G:  $p=0.001$ ; AA vs. GG:  $p=0.01$ ;

AG vs. GG:  $p=0.00$ ; AA+AG vs. GG:  $p=0.003$ ; AA vs. GG+AG:  $p=0.01$ ). However, more studies from different populations including larger samples size are still essential to establish a more specific role of *TNF- $\alpha$*  in GC. See page 272.

### **Does steatosis affect the performance of diffusion-weighted magnetic resonance imaging (MRI) values for fibrosis evaluation in patients with chronic hepatitis c genotype 4?**

Chronic liver disease causes aberrant formation of fibrous tissue that impairs normal liver function, resulting in hepatic fi-

brosis, cirrhosis, portal hypertension, and hepatocellular carcinoma. Early detection of hepatic fibrosis has important clinical implications for chronic viral hepatitis because antiviral treatment can reduce hepatic decompensation and increase patient survival. Diffusion-weighted MRI (DWI) of the liver is well established for the detection and characterization of hepatic lesions. However, in patients with hepatic steatosis, DWI underestimates apparent diffusion coefficient (ADC) values, delaying the treatment time. This study found that the ADC value significantly decreased in patients with steatosis compared to those without steatosis (both  $p<0.001$ ), irrespective of fibrosis status whether early or advanced. To avoid the underestimation of the ADC value and hence to start early treatment, histological detection using liver biopsy rather than DWI should be preferred in patients with hepatic steatosis. See page 283.

### **Importance of target calorie intake in hospitalized patients**

Most of the hospitalized patients are malnourished, particularly the intensive care unit (ICU) patients. Malnutrition is associated with many untoward outcomes in combating critical diseases. The timing of commencement and the types of nutrition (enteral or parenteral) are controversial in this regard. ASPEN and ESPEN have different approaches. Here Ferda Akbay Harmandar et al. conducted a study in Antalya where inpatients with critical diseases regardless of their ward (ICU or general ward) were recruited. Enteral nutrition (EN) was initiated within 24 hours of admission. They found that the EN and EN+SPN groups were similar in terms of rates of target achievement, mortality, and discharge, while a lower mortality rate and improved nutritional status were evident in achievers than in nonachievers of the target calorie intake regardless of the type of nutrition. See page 289.

### **Infants with extrahepatic biliary atresia: effect of follow-up on survival rate at a transplantation center**

Biliary atresia (BA) is the leading cause of neonatal cholestasis and the primary cause of infant liver transplants worldwide. It is primarily an obliterative cholangiopathy caused by progressive inflammation and fibrosis of the bile duct that is observed only in childhood. BA is lethal without treatment and requires palliative or radical surgery such as liver transplantation. With a two-step treatment, the 2-year survival rate approaches nearly 80%. In this study conducted by Miray Karakoyun et al., a significant difference was observed between the time of transplantation, time between Kasai portoenterostomy (KPE) and transplantation, pediatric end-stage liver disease (PELD) scores of patients with BA, and patients undergoing KPE at their center and those from other institutes. Performing KPE before malnutrition and complications of cirrhosis and following-up patients with BA at liver transplantation centers will increase the success of the operation and overall survival. The importance of timely diagnosis and KPE for patients with PA is emphasized in this article. See page 298.

**Mesut Akarsu, MD**  
Covering the Cover Editor