

## COVERING THE COVER

### **The validity and reliability studies of the University of California, Los Angeles Scleroderma Clinical Trial Consortium Gastrointestinal Tract (UCLA SCTC GIT) 2.0 questionnaire for the Turkish Society**

Systemic sclerosis is a systemic autoimmune connective tissue disorder that is characterized by vasomotor disturbances and excessive synthesis of extracellular matrix leading to fibrosis of skin, subcutaneous tissue, and internal organs. In systemic sclerosis, gastrointestinal organs are among the most commonly affected sites of internal organ involvement. The pathogenesis of systemic sclerosis is not completely understood, but vasculopathy leading to increased intestinal permeability and progressive accumulation of fibrosis and neuropathy are hallmarks of gastrointestinal involvement. There are a lot of nonspecific gastrointestinal symptoms and manifestations that can be attributed to systemic sclerosis. Those gastrointestinal manifestations include but are not limited to gastroesophageal reflux disease, esophageal motility disorders, functional gastrointestinal disorders such as dyspepsia or constipation, and small intestinal bacterial overgrowth where usually symptoms are highly variable. It has utmost importance to translate mostly subjective gastrointestinal symptoms into more objective and measurable scales using questionnaires for better understanding and evaluation of treatment effects.

In this study, the investigators used a Turkish translation of the University of California, Los Angeles Scleroderma Clinical Trial Consortium Gastrointestinal Tract (UCLA SCTC GIT) 2.0 questionnaire that was revised and updated in 2009, for assessment and follow-up of gastrointestinal involvement in Turkish-speaking patients with systemic sclerosis.

The investigators included 97 adult patients who fulfilled the American College of Rheumatology/European League against Rheumatism classification criteria for systemic sclerosis between August 2014 and April 2015. Patients with both diffuse and limited forms of systemic sclerosis according to the LeRoy criteria were also included. The Cronbach's alpha coefficient was calculated to evaluate the reliability of the UCLA SCTC GIT 2.0, and internal consistency analyzes were performed. The Cronbach's alpha coefficient was found to be 0.894 ( $\geq 0.70$ ) indicating acceptable reliability, except for the diarrhea subscale ( $\alpha=0.356$ ). In conclusion, the authors reported that the Turkish GIT 2.0 questionnaire had a good internal consistency, high reliability, and acceptable validity. It is suitable for use in the assessment and follow-up of gastrointestinal

symptoms in Turkish-speaking patients with systemic sclerosis. See page 234.

### **Effect of administering kefir on the changes in fecal microbiota and symptoms of inflammatory bowel disease: A randomized controlled trial**

Inflammatory bowel diseases (IBD) are multifactorial in etiology caused by the combination of genetic susceptibility and pathogenic contributions of several environmental and host risk factors. Alterations of gut mucosal immune system have been the key in understanding the pathophysiology of the disease and developing new treatment strategies. The studies confirming that there is paucity of gut inflammation in germ-free mice brought the idea that mucosal immune alterations cannot cause IBD in the absence of antigens, namely microorganisms. Therefore, microbiota has recently become among the most important research areas in IBD. Although current understanding regarding the relationship between gut microbiota and IBD pathogenesis is still in its early phase, modulation of gut microbiota has become a novel target to improve outcomes in this difficult to manage disease entity. Several methods, including dietary changes, antibiotics, fecal microbiota transplantation, and administration of probiotics, are available to alter or change the gut microbiota. This study focuses on the role of probiotics in a prospective single-center, open-label, controlled setting using kefir (a traditional fermented-milk product). The investigators recruited 45 patients with IBD from May 2015 to December 2016. Twenty-five patients with IBD were administered 400 ml/day of kefir, which contains  $2.0 \times 10^{10}$  CFU/mL viable *Lactobacillus* bacteria, twice a day for four weeks. The control group did not undergo any placebo treatment. All participants were required to fill a symptom diary; clinical activity index was calculated; and blood tests were obtained before and after therapy. All participants completed a four-week follow-up. The authors reported that *Lactobacillus* load in the stool of treated subjects increased significantly at the end of the follow-up. Biochemical parameters and symptoms significantly improved in treated patients with Crohn's disease but not in ulcerative colitis. However, multiple limitations in the study preclude jumping into conclusions. First, the study sample is very small, and duration of study is very short that makes it predisposed to placebo effect, especially in the absence of a placebo group. The randomization is questionable considering the uneven number of patients in the treatment and control groups. Nevertheless, in

this study, the authors investigated the effects of kefir, a previously uninvestigated probiotic in patients with IBD, showing that it may improve symptoms in the short term; however, it should be acknowledged that well-designed mechanistic and confirmatory studies should be completed before recommending any probiotic in the standard treatment of patients with IBD. See page 242

**Screening for hepatic fibrosis and steatosis in Turkish patients with type-2 diabetes mellitus: A transient elastography study**

Compared with general population, the prevalence of nonalcoholic fatty liver disease (NAFLD) is higher in patients with type-2 diabetes mellitus because of the shared mechanism of insulin resistance in both disorders. Most patients with NAFLD have a silent course of disease; nevertheless, it can progress to advanced fibrosis and cirrhosis in a subset of patients where liver-related mortality is increased. Because most patients are asymptomatic, NAFLD is usually detected incidentally in patients with elevated transaminases during routine laboratory investigations, or in patients who require liver ultrasonography for abdominal complaints. Transaminases are not universally elevated in patients with NAFLD, and ultrasonography may not provide information regarding the severity of the disease. In this study, 124 patients with type-2 diabetes mellitus who were recruited between August 2015 and August 2017 underwent transient elastography. They reported a prevalence of 16.9% and 8% for advanced fibrosis and cirrhosis, respectively. Transient elastography showed that 117 (94.3%) patients had steatosis defined as a controlled attenuation parameter >222 dB/m. In conclusion, the study confirmed that NAFLD is almost invariably present in patients with type-2 diabetes mellitus, and up to one-fourth of all diabetic patients have either advanced fibrosis or cirrhosis. This result is very important because most of those patients with type-2 diabetes mellitus usually remain unnoticed regarding their liver-related mortality or morbidity risk in the long term. Transient elastography seems to be a very useful, reliable, and inexpensive tool to screen individuals with type-2 diabetes mellitus for possible NAFLD that is highly prevalent in Turkish patients. A timely diagnosis of NAFLD by us-

ing transient elastography can provide patients a greater motivation to change their lifestyle and diet modification. See page 266.

**Evaluation of hypertriglyceridemia-induced acute pancreatitis: A single tertiary care unit experience from Turkey**

Acute pancreatitis is an inflammatory condition of the pancreas. It is characterized by abdominal pain and elevated levels of pancreatic enzymes in the blood. Among the several conditions associated with acute pancreatitis, gallstones and chronic alcohol abuse account for approximately two-thirds of cases. Hypertriglyceridemia is an important yet rare condition that causes acute pancreatitis. It is responsible for approximately only 3%-4% of all acute pancreatitis cases. Hypertriglyceridemia is defined by fasting serum triglyceride level of >150 mg/dL (1.7 mmol/L), and is classified based on the degree of elevation as mild (150-199 mg/dL 1.7-2.2 mmol/L), moderate (200-999 mg/dL, 2.3-11.2 mmol/L), severe (1000-1999 mg/dL, 11.3-22.5 mmol/L), and very severe hypertriglyceridemia ( $\geq 2000$  mg/dL, >22.6 mmol/L). Hypertriglyceridemia is considered a significant risk factor for acute pancreatitis especially when levels are >1000 mg/dL (11.3 mmol/L). In this study, the investigators evaluated demographic and clinical characteristics, serum triglyceride levels, clinical outcomes, and difficulties encountered during the management of patients with hypertriglyceridemia-induced acute pancreatitis in a single-center retrospective setting. The authors included 635 patients with acute pancreatitis in which the etiology was hypertriglyceridemia in 33 (5.2%) patients. The mean triglyceride level was 2653 mg/dL (range: 43-13700 mg/dL), and the mean duration of hospital stay was 4.4 days (range: 2-14 days). Only one patient with hypertriglyceridemia-induced acute pancreatitis died because of multiple-organ failure. Patients with a triglyceride level of >1000 mg/dL were younger, had a longer hospital stay, and had a higher recurrence rate. In conclusion, compared with patients having other etiologies of acute pancreatitis, hypertriglyceridemia-induced acute pancreatitis was observed at a younger age, had more recurrent pancreatitis, and showed a predilection for male gender. See page 271..