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Covering the Cover Editor of this Issue

COVERING THE COVER

Evaluation of depression, anxiety, and quality of life in hepatitis C patients treated with direct-acting antiviral agents

Hepatitis C virus (HCV) infection is a major cause of chronic liver disease worldwide, with approximately 71 million individuals chronically infected. HCV infection can influence the quality of life (QoL) so much that anxiety and depression were found increased in HCV-infected patients. Social isolation, anxiety, psychological stress, fatigue, and some other extrahepatic symptoms play a role in decreased QoL.

In this issue of the Turkish Journal of Gastroenterology, Kani et al. present their experience with a study of 80 patients, examining anxiety and QoL of chronic hepatitis C (CHC) patients before and after the treatment with direct-acting antiviral agents (DAAA). To measure anxiety and the severity of depression symptoms, they used the Hospital Anxiety and Depression questionnaire one month before initiation of the treatment and a month after its completion; in addition, a Short Form-36 (SF-36) questionnaire was used in the same way to measure the QoL. Their cut-off scores were 10 for anxiety and 7 for depression.

The mean anxiety and depression scores were 7.56±5.05 and 6.84±4.52 before the treatment, and 5.34±3.76 and 5.73±3.93 (n=73) after the treatment (p=0.000 and p=0.029), respectively. After the DAAA treatment, the anxiety scores of 18 (24.7%) patients and depression scores of 26 (35.6%) patients were above the cut-off (p=0.075).

Regarding SF-36 results, a statistically significant improvement was found in physical functioning (p=0.026), physical role limitation (p=0.009), bodily pain (p=0.011), general health (p=0.017), social functioning (p=0.006), and emotional role limitation (p=0.007) after the treatment.

These results show that elimination of HCV increases the QoL and reduces the need for psychiatric treatment. According to the present study, the DAAA treatment improves depression and anxiety symptoms as well as QoL, in addition to improving CHC. However, prospective randomized studies with the participation of psychiatrists will be beneficial in the future. See page 801.

Efficacy and safety of endoscopic retrograde cholangiopancreatography in pregnancy: A high-volume study with long-term follow-up

Pregnancy is associated with up to 30% increased risk of gallstone formation. Although complications from cholelithiasis are rare, and most of the cases can be managed conservatively, cholelithiasis may cause cholangitis and pancreatitis during pregnancy. Endoscopic retrograde cholangiopancreatography (ERCP) has been widely used in pregnant women in recent years, but there are now concerns regarding potential fetal exposure to radiation and possible adverse events, such as post-ERCP pancreatitis.

In this issue of the Turkish Journal of Gastroenterology, Konduk and Bayraktar investigated the efficacy and safety of carrying out endoscopic retrograde cholangiopancreatography during pregnancy. A total of 25 pregnant women who underwent ERCP under propofol sedation (18 using fluoroscopy and 7 using the nonradiation aspiration technique) were evaluated in this study. Their mean length of gestation was 19.9 weeks. ERCP indications were biliary pancreatitis (*n*=9), choledocholithiasis (*n*=12), choledocholithiasis + cholangitis (*n*=1), and cholangitis (*n*=3). Complications occurred in four of the cases (vaginal bleeding (*n*=2), uterine contractions (*n*=1), and abortion (*n*=1)); however, the abortion clearly resulted from the mother's obstetrical problems, alone. The remaining patients had normal deliveries and healthy newborns, without complications during the follow-up period of 1–7 years.

The present study shows that both conventional ERCP and nonradiation ERCP procedures can be performed successfully during pregnancy, without increasing the risk of fetal and maternal complications. However, randomized controlled trials with a large number of patients are needed to confirm these findings. See page 811.

Can a 1-day clear liquid diet with a split-dose polyethylene glycol replace conventional practice during the preparation for colonoscopy screening?

Colorectal cancer (CRC) is a common and lethal cancer worldwide; however, screening can improve disease prognosis by identifying early-stage CRCs. Colonoscopy has the highest sensitivity for CRC, although proper bowel preparation is essential to provide adequate visualization of the colonic mucosa, optimize lesion detection, and

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allow for therapeutic interventions. Many patients cannot comply with the colon cleansing protocols because of strict dietary modifications and the large volume of laxative solutions needed. Although dietary flexibility is allowed in several bowel preparation regimens, the ideal dietary modification is not clearly defined. The most frequently prescribed 1-3 day diets are the clear liquid diet (CLD) and the low-residue diet.

In this issue of the Turkish Journal of Gastroenterology, Etik et al. have compared the 3-day combined diet versus 1-day CLD with a split-dose polyethylene glycol and electrolyte lavage solution, as preparation for colonoscopy screening. A total of 506 patients were randomly divided into two groups: the first group received 1-day CLD and the second group received a 3-day combined diet (CMD). PEG cleansing solutions were administered in a split-dose fashion for all patients, with a total of 4 L of either PEG-ELS or sulfate-free PEG-ELS (SF-PEG-ELS). The quality of the bowel preparation was significantly inferior in the CMD + PEG-ELS group than both the CLD + PEG-ELS (p=0.004) and CMD + SF-PEG-ELS groups (p=0.007). There was no statistically significant difference between groups in terms of polyp detection rate.

Results indicated that a 1-day CLD colonoscopy preparation was not inferior to a 3-day CMD, in terms of bowel cleansing, polyp detection rates, or patient tolerance. However, the split-dose SF-PEG-ELS was more tolerable than the split-dose PEG-ELS.

This study shows that a shorter diet, a split-dose laxative, and a more palatable formula (without sulfate components) may improve the quality of bowel preparation and minimize patient discomfort. Nevertheless, regarding diet selection, clinicians should carefully evaluate any compromise to the efficacy and acceptability of the diet based on individual needs of patients. See page 817.

Anticolon cancer activity of Bifidobacterium metabolites on colon cancer cell line SW742

The prevalence of life-threatening colorectal cancer (CRC) is increasing and dietary factors (low carbohydrate, high protein, low fiber, and high fat) are known to play an essential role in its development. Probiotics were introduced as a living microbial supplement, acting on the gastrointestinal tract to improve the microbial balance of the intestine and confer health effects. Therefore, it seems possible that probiotics could prevent the development of CRC by modifying the composition of intestinal microbiota. The majority of probiotics are of *Bifidobacterium* or *Lactobacillus* genus; the dietary consumption of *Bifidobacterium lactis* HN019 enhances natural immunity, while *Bifidobacterium infantis* strain ATCC (15697) has antitumor activities.

In this issue of the Turkish Journal of Gastroenterology, Elham et al. report on the association between *Bifidobacterium bifidum* and a substantial improvement in colon cancer patients. In total, 50 samples of infant feces were collected in a sterile container, together with a probiotic capsule (Familact). After molecular identification, out of 17 isolates of *Bifidobacterium,* two isolates were seen to have a cytotoxicity effect. In this report, the impact of *Bifidobacterium bifidum* on cancer cell line SW742 was studied, and the results showed that the CFS of *Bifidobacterium bifidum* could inhibit the growth of colon cancer cells.

The scientific evidence suggests that *Bifidobacterium* exerts anti-carcinogenic activity through potential physiological mechanisms, usually being codependent and strain-specific. However, further research is needed to help clarify this role of probiotics in the prevention and treatment of colon cancer. See page 835.