COVERING THE COVER

Bezoars in upper gastrointestinal endoscopy: A singlecenter experience

Bezoars are compact masses formed in the gastrointestinal tract by accumulation of undigested food, hair, and medication. Most commonly seen in stomach, they occur in patients with certain risk factors. In this issue of the Turkish Gastroenterology Journal, authors in a tertiary center reviewed their endoscopy records of the previous three years and detailed 66 patients with bezoars. They aimed to find out the risk factors for bezoar formation and the success rate of endoscopic treatment. Although bezoars were most commonly seen in the stomach (70%), they were present in the duodenum (12%), esophagus (9%), anastomosis line (7.5%), and in the efferent loop (1.5%). The most common risk factors were history of gastrointestinal surgery (23%), diabetes mellitus (17%), trichophagia (9%), and anxiety disorders (6%). Concomitant endoscopic pathologies included gastric ulcers (27%), duodenal ulcers (11%), erosive gastritis (20%), apical stenosis (6%), and reflux esophagitis (23%). Bezoars were successfully removed with endoscopic intervention in 86.5% of patients. The findings of this study verify and expand the current literature on risk factors associated with bezoar formation and the success rate of endoscopic treatment. This is the first study demonstrating an association between occurrence of bezoars and esophagitis. See 85.

Prognostic value of the 2017 World Health Organization classification system for gastric neuroendocrine tumors: A single-center experience

Neuroendocrine tumors (NETs) are a heterogeneous group of neoplasms that arise from multipotent stem cells of the neuroendocrine system. The World Health Organization (WHO) recommends grading NETs into three groups based on cellular proliferation markers of mitotic count and the Ki-67 index. NETs are very rare and anatomically dispersed. Although gastric NETs (G-NETs) account for less than 10% of NETs, their incidence has increased in recent years. In this issue of the Turkish Gastroenterology Journal, authors from the Hacettepe Cancer Institute reviewed their archives over 17 years and retrospectively classified their 94 G-NET patients in accordance with the 2017 WHO grading system. They aimed to determine the prognostic value of the system and the impact of radical surgery on survival in G1 and G2 G-NETs. They compared 50 G1, 37 G2, and 4 G3 NETs, as well as 3 neuroendocrine carcinoma patients with a tumor size ranging from 2 mm to 90 mm. One of the 50 G1 G-NETs had no progression during a 126 months median follow up. For G2 tumors, progression and metastasis rates were 24% and 19%, respectively. Although progression-free survival (PFS) rates significantly decreased with increasing grade, the overall survival rates were similar between groups. More than half of G1 (n=32) and G2 (n=25) patients underwent radical surgery. No significant difference in PFS was seen between the surgical and non-surgical group in both G1 and G2 tumors. The authors conclude that the 2017 WHO grading system has low prognostic value. In addition, radical surgery has no survival benefit for G1 and G2 G-NETs. See 91.

Serum resolvin D1 level as a marker of inflammation in constipation-dominant irritable bowel syndrome

Irritable bowel syndrome (IBS) is the most prevalent gastrointestinal condition responsible for the majority of gastroenterology referrals. Although its pathophysiological mechanism remains unclear, emerging evidence shows a relationship between symptom intensity and low-grade or subclinical inflammation in patients with IBS. Resolvin D1 (RvD1) is an anti-inflammatory molecule that reduces trans-endothelial migration of polymorphonuclear leukocytes during the resolution phase of inflammation. RvD1 levels have been shown to decrease in several clinical conditions with acute inflammation.

In this manuscript, the authors compared serum RvD1 levels of 55 patients with constipation-dominant IBS (IBS-C) with 36 age, sex and BMI-matched healthy controls with the same complaints. Their aim was to test whether RvD1 could help distinguish IBS-C patients from healthy controls. The study showed significantly lower median RvD1 concentrations in IBS-C patients compared to controls [0.45 (0.11–1.65) ng/mL vs. 0.79 (0.36-2.23) ng/mL, p<0.001]. On ROC curve analysis, RvD1 concentration lower than 0.47 ng/mL (AUC: 0.736) appeared to be effective in diagnosing IBS-C with an accuracy of 65.9% (sensitivity: 54.5%, specificity: 83.3%). The low levels of RvD1 demonstrated in IBS-C patients in this study warrants further studies to test the possible contribution of this molecule in the pathophysiology of the disease. See 113.

The effect of twelve weeks of ezetimibe treatment on HDV RNA level in patients with chronic hepatitis D

Approximately 15–20 million individuals are chronically co-infected with Hepatitis D (HDV) and Hepatitis B viruses globally. There is no pharmacological treatment for HDV; however, pegylated interferon alpha has shown anti-HDV activity with low rates of sustained viral response. The sodium taurocholate co-transporting polypeptide (NTCP) is a cell surface receptor necessary for cellular entry of HBV and HDV. Ezetimibe, approved medication to treat high blood cholesterol, is a selective inhibitor of intestinal cholesterol absorption. It also possesses pharmacophore features capable of inhibiting NTCP. In this proof of concept phase II trial, the primary end points following 12 weeks of ezetimibe therapy were: 1) one log or more reduction of HDV RNA levels from baseline and 2) the ability to tolerate the 10 mg daily dose of ezetimibe. A total of 44 chronic Hepatitis D (CHD) patients who were non-responders or relapsers from pegylated interferon therapy were included. According to intention to treat analysis, one log or more reduction of HDV RNA level from baseline was observed in 41% of patients at week 12. Only one patient stopped the treatment following an impaired liver function test. No other severe adverse reactions were reported. The authors concluded that some of the chronic HDV patients responded to 10 mg daily ezetimibe monotherapy. Further studies are required in naïve patients using ezetimibe at a higher dose or for a longer duration, alone or in combination with other agents. See 136.

Using a novel magnetic resonance imaging technique to study the relationship of liver fat fraction with AST and ALT levels in overweight and obese children

Non-alcoholic fatty liver disease is a common clinical condition in adults as well as children and adolescents. It is especially common in overweight and obese subjects. Proton density fat fraction measured by magnetic resonance imaging (MRI-PDFF), a novel and increasingly used modality, provides accurate and quantitative detection of fat accumulation in the liver. Several experimental and clinically-used biomarkers have been shown to correlate with liver fat fraction (LFF). In this manuscript, the authors used MRI-PDFF to determine the relationship between LFF and levels of serum alanine amino transferase (ALT) and serum aspartate aminotransferase (AST), specifically in overweight and obese children. A total of 37 children, 9-17 years old, were included in the study. Based on the percentile curves, 13 children were obese, 12 were overweight, and 12 were normal weight. Both AST and ALT levels had a strong correlation with LFF (r=0.716 and r=0.878, respectively; p<0.001 for both). ROC analysis showed that the optimum LFF threshold for predicting both AST (75% sensitivity, 89% specificity) and ALT (80% sensitivity, 90% specificity) levels was 114 IU/L. Overall, this pilot study in a small number of obese and overweight children demonstrates a strong correlation between LFF and serum transaminase levels. See 156.