GASTRO-HEP News

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New Colorectal Cancer Surveillance Guidelines for Inflammatory Bowel Disease Patients

The American Gastroenterological Association released a new medical position statement and technical review in the February issue of *Gastroenterology* on the diagnosis and management of colorectal cancer (CRC) in patients with inflammatory bowel disease (IBD). The new guidelines, which were developed due to the increased risk for some patients with IBD of developing CRC compared to individuals without IBD, include the following conclusions:

- A greater risk of CRC is associated with disease duration, more extensive disease, severity of inflammation, primary sclerosing cholangitis, and a family history of sporadic CRC.
- The most effective marker for CRC risk in IBD at present is dysplasia found on biopsy.
- Patients who have IBD and a non–adenoma-like dysplasia-associated lesion or mass that cannot be removed by colonoscopy should undergo colectomy. In contrast, patients who have an adenoma-like dysplasia-associated lesion or mass that can be removed endoscopically and those who do not have any evidence of flat dysplasia elsewhere in the colon can undergo polypectomy and continued surveillance.
- It is highly likely that colectomy of flat high-grade dysplasia can treat undiagnosed synchronous cancer (which may occur in 42–67% of patients).
- It is moderately likely that surveillance colonoscopy can cause at least a moderate decrease in the risk of CRC in IBD patients. Those most likely to benefit are patients with extensive ulcerative colitis or Crohn's disease.
- Chromoendoscopy is endorsed in high-risk patients to detect dysplasia and cancer.
- Despite some evidence that certain IBD treatments may prevent CRC and dysplasia, further research is required.
- There are currently no markers (genetic, molecular, or biochemical) that are measurable in tissue, blood, or stool to reliably predict which IBD patients have the highest risk for dysplasia or cancer, though this issue is the subject of active research.

Monoclonal Stool Tests for Diagnosing *Helicobacter pylori* Infection in Dyspepsia Patients

In the February issue of *Clinical Infectious Diseases*, researchers at the Universitat Autònoma de Barcelona in Spain reported a study that compared the diagnostic accuracy of 3 monoclonal stool tests for diagnosing *Helicobacter pylori* infection: RAPID Hp StAR, ImmunoCard STAT! HpSA (both rapid in-office tests), and Amplified IDEIA Hp StAR (an enzyme immunoassay test). The researchers examined 199 untreated consecutive patients with dyspepsia. The concordance of the rapid urease test, histopathology, and urea breath test was considered to be the gold standard for diagnosing *H. pylori* infection. Immunochromatographic test readings were given by 2 different observers. According to the researchers, the sensitivity and specificity of Amplified IDEIA Hp StAR was 90% and 89%, respectively. In contrast, the sensitivity and specificity of RAPID Hp StAR was 91% and 80%, respectively, according to observer #1, and 92% and 76%, respectively, according to observer #2. Finally, the sensitivity and specificity of ImmunoCard STAT! HpSA was 69% and 90%, respectively, according to observer #1, and 74% and 89%, respectively, according to observer #2.

Measuring Liver Stiffness in Nonalcoholic Fatty Liver Disease

Led by Victor de Lédinghen, MD, of Hôpital Haut-Lévêque in France, researchers at various institutions in France and China conducted a study to assess the accuracy of transient elastography for diagnosing fibrosis and cirrhosis in the setting of nonalcoholic fatty liver disease (NAFLD). Another study aim was to examine the factors associated with discordance between transient elastography and histology. The results of the study were published in the February issue of *Hepatology*. The study population consisted of 246 consecutive patients from 2 ethnic groups who underwent successful liver stiffness measurements

and had satisfactory liver biopsy specimens. According to the researchers, for transient elastography, the area under the receiver-operating characteristics curve (AUROC) for F3 or higher and F4 disease was 0.93 and 0.95, respectively. This was significantly higher than the aspartate aminotransferase-to-alanine aminotransferase ratio, aspartate aminotransferase-to-platelet ratio index, FIB-4, BARD, and NAFLD fibrosis scores (with the AUROC ranging from 0.62 to 0.81; $P<.05$ for all comparisons). In addition, the sensitivity, specificity, and positive and negative predictive values for F3 or greater disease were 91%, 75%, 52%, and 97%, respectively, at a cutoff value of 7.9 kPa. Hepatic steatosis, necroinflammation, or body mass index (BMI)did not appear to affect liver stiffness. In 33 (13.4%) patients, discordance of at least 2 stages was seen between transient elastography and histology. Based upon multivariate analysis, discordance was associated with having a liver biopsy length of less than 20 mm and F0-2 disease. The researchers concluded that transient elastography is usually accurate in the setting of NAFLD and that unsatisfactory liver biopsies, not the transient elastography method itself, are usually responsible for discordance. Due to its high negative predictive value as well as its modest positive predictive value, transient elastography was deemed useful for screening patients to exclude advanced fibrosis.

Colonoscopy Yield in Nonconstipated Irritable Bowel Syndrome

Researchers at the University of Michigan Health System in Ann Arbor, Michigan conducted a prospective, case-control study at 3 US sites to compare the prevalence of structural colonic lesions in patients with suspected nonconstipation-predominant irritable bowel syndrome (IBS) and healthy volunteers. The results of this study were recently released online ahead of print publication in the *American Journal of Gastroenterology.* Patients who had suspected nonconstipation-predominant IBS (according to Rome II criteria) underwent colonoscopy with rectosigmoid biopsies. The control group was comprised of healthy individuals undergoing colonoscopy for CRC screening or polyp surveillance. The study population consisted of 466 patients with suspected IBS and 451 control patients. The patients with suspected IBS were significantly younger ($P<.0001$) and were comprised of more women ($P<.0001$) than the control patients. In suspected IBS patients, the most frequent lesions included hemorrhoids (18.2%), polyps (14.6%), and diverticulosis (8.8%). Patients with suspected IBS had a lower incidence of adenomas (7.7% vs 26.1%; $P<.0001$) and diverticulosis (8.8% vs 21.3%; $P<.0001$) and a higher incidence of mucosal erythema or ulceration (4.9% vs 1.8%; $P<.01$) compared to the control group. The overall incidence of microscopic colitis in suspected IBS patients was 1.5% (7/466) and 2.3% (4/171) in patients at least 45 years of age.

Management Strategies of Asymptomatic Pancreatic Cystic Neoplasms

According to the February issue of *Gastroenterology*, researchers at the VA Greater Los Angeles Healthcare System in Los Angeles, California developed evidence-based nomograms to aid in the clinical decision-making process for the management of pancreatic cysts, particularly branch duct intraductal papillary mucinous neoplasms (BD-IPMNs). Decision analysis with Markov modeling was used in a patient with a pancreatic head cyst radiographically suggestive of BD-IPMN to compare competing management strategies, including the following: initial pancreaticoduodenectomy (PD); yearly surveillance with noninvasive radiography; yearly invasive surveillance with endoscopic ultrasound; and no surveillance. Probability estimates were derived from a systematic literature review, and the primary outcomes consisted of overall and quality-adjusted survival. Initial PD was found to be the dominant strategy for maximizing overall survival (OS) for patients with cysts greater than 2 cm, regardless of age or comorbidities. In contrast, for lesions less than 1 cm, surveillance was the dominant strategy. However, for cysts less than 3 cm in patients younger than 75 years of age, the no-surveillance strategy maximized quality of life, when measuring quality-adjusted survival. After 85 years of age, noninvasive surveillance dominated. Initial PD was not shown to maximize quality of life for any age or cyst size. The researchers concluded that pancreatic cyst management could be guided by Markov-based clinical nomograms and could depend upon age, cyst size, comorbidities, and whether overall survival is valued over quality-adjusted survival. To maximize overall survival (regardless of quality of life), surgery was deemed optimal for lesions greater than 2 cm. To maximize quality-adjusted survival, the surgical threshold was deemed to be 3 cm (except for the very elderly).

Obesity and Prognosis of Colorectal Cancer Survivors

Researchers at the Mayo Clinic in Rochester, Minnesota, and the Southwest Oncology Group Statistical Center in Seattle, Washington, conducted a study to evaluate the impact of body mass index (BMI) on the prognosis of CRC survivors. The results of this study were released online ahead of print publication in *Clinical Cancer*

Research. The study population consisted of patients with tumor-node-metastasis stage II and III colon carcinomas (n=4,381) who were enrolled in 7 randomized trials of 5-fluorouracil–based adjuvant chemotherapy. The researchers used Cox proportional hazards models to evaluate the relationship of BMI with disease-free survival (DFS) and OS. In the study, 868 (20%) of the CRC patients were obese (BMI, ≥30 kg/m^2), of whom 606 patients were categorized as class 1 (BMI, 30–34 kg/m^2) and 262 patients as class 2 or 3 (BMI, ≥35 kg/m^2). There was a greater likelihood that obese patients, as opposed to normal-weight patients, were younger, had more distal tumors and lymph node metastases, and demonstrated more intact DNA mismatch repair (P<.017). Based upon multivariate analysis, BMI was significantly related to both DFS (P=.030) and OS (P=.0017). Reduced OS was seen in men with class 2 or 3 obesity compared to normal-weight men (hazard ratio [HR], 1.35; 95% confidence interval [CI], 1.02–1.79; P=.039). Women with class I obesity experienced reduced OS (HR, 1.24; 95% CI, 1.01–1.53; P=.045) compared to normal-weight women. In men, being overweight was related to improved OS (P=.006), whereas in women, being underweight was associated with significantly worse OS (P=.019). BMI was deemed not to be predictive of therapeutic benefit. The researchers concluded that obesity is an independent prognostic variable in CRC survivors and demonstrates gender-related differences.

In Brief

In a retrospective multicenter study of hepatitis B virus patients, tenofovir disoproxil fumarate monotherapy induced a potent and long-lasting antiviral response in nucleoside/nucleotide analogue–experienced patients with previous treatment failure. The researchers noted that their data may have implications for current add-on strategies. *Hepatology.* 2010;51:73-80.

Researchers conducted a retrospective review of an institutional review board–approved database and found that in some highly selected patients with infected or symptomatic organized pancreatic necrosis, combined modality drainage resulted in favorable clinical outcomes associated with low, procedure-related morbidity. Pancreaticocutaneous fistulae and surgical necrosectomy were avoided with minimal endoscopic resource utilization. *Gastrointest Endosc.* 2010;71:79-84.

The results of a large observational study indicated a strong inverse association between levels of prediagnostic circulating vitamin D concentration (25-hydroxy-vitamin-D, 25-(OH)D) and the risk of CRC in Western European populations. The researchers noted that further randomized trials are needed to assess whether increases in circulating 25-(OH)D concentration can effectively decrease the risk of CRC. *BMJ.* 2010;340:b5500.