Barrett's Guidelines Lack Support in Practice

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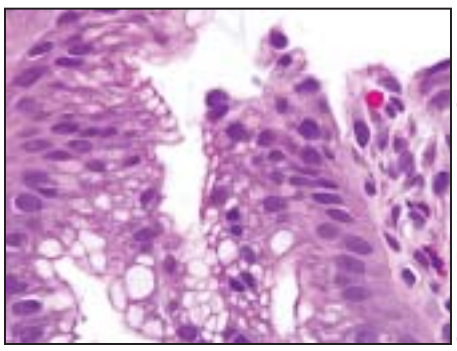
SAN DIEGO — There is a lack of strong evidence to support the current screening and surveillance guidelines for Barrett's esophagus and associated neoplasia, Dr. Marcia Irene Canto said at a meeting jointly sponsored by the AGA Institute and the Japanese Society of Gastroenterology.

"Sedated esophagogastroduodenoscopy [EGD] screening may be more cost effective than surveillance only if Barrett's patients with dysplasia who are diagnosed by screening are followed," said Dr. Canto, director of clinical research in the division of gastroenterology and hepatology at Johns Hopkins University, Baltimore.

"The biopsy protocol detects cancer, but current guidelines regarding increased surveillance intervals in Barrett's patients without dysplasia would lead to missed high-grade dysplasia and cancer. We need better endoscopic techniques and better risk stratification," she said.

Current practices for screening and surveillance of Barrett's esophagus are not based on randomized, controlled trials (level I evidence) or even well-designed cohort or case-control trials (level II), she explained. They are based on decision analyses, case series, case reports, or flawed clinical trials (level III); opinions of expert authorities based on clinical evidence, descriptive studies, or reports of expert committees (level IV); and insufficient evidence to form an opinion (level V).



COURTESY DR. MARCIA IRENE CANTO

Patients with low-grade dysplasia, shown here, need an EGD every 6 months for a year.

"The rationale for screening and surveillance is to improve survival, but [increasingly], we are trying to prevent cancer in Barrett's patients. It's a different approach, by detecting high-grade dysplasia and intervening with ablation endoscopic mucosal resection or esophagectomy in this precancerous phase."

Data on 783 patients from five prospective studies and one patient registry suggest that the risk of cancer in Barrett's esophagus is related to the grade of dysplasia. The risk for patients with no dysplasia stands at 2%, and the risk for those with low-grade and high-grade dysplasia is 7% and 22%, respectively.

Dr. Canto noted that there are no randomized, controlled trials on the evidence for surveillance in Barrett's esophagus, only three retrospective case series and one ongoing prospective study. But data from those studies indicate that the 2-year survival rate seems better for patients who undergo surveillance, compared with those who do not (86% vs. 46%, respectively).

And it is probably cost effective to target patients with dysplastic Barrett's, she said.

The evidence against surveillance is largely based on the fact that most Barrett's patients die from causes other than cancer. "When you look prospectively, the risk of cancer in Barrett's is low: about 0.5%-1.2% per year, so EGD, the standard way of doing surveillance, is very costly."

Moreover, "there is such inconsistency in techniques for surveillance. Many practicing gastroenterologists do not follow any particular biopsy or surveillance technique."

Since clinicians at Johns Hopkins began endoscopic surveillance in 1994, the prevalence of occult cancer in 39 Barrett's patients with high-grade dysplasia has decreased from 43% to 21%. None of the 15 patients who had some type of biopsy protocol or imaging technique implemented in their surveillance had occult cancer, whereas 8 of the 24 who did not follow a biopsy protocol had occult cancer. "This is even with modern endoscopy techniques, so there is some benefit to trying to do that," Dr. Canto said.

For a Barrett's patient with no dysplasia, the American Gastroenterological Association (AGA) recommends a second EGD 1 year later, and then surveillance every 5 years (Gastroenterology 2005;128:1468-70).

The American College of Gastroenterology (ACG) guidelines are similar, but recommend surveillance every 3 years (Am. J. Gastroenterol. 2002;97:1888-95).

"Guidelines written by the GI societies

are based on current data and decision analyses in terms of what the best surveillance interval is. There will never be the equivalent of the National Polyp Study for colon cancer surveillance," Dr. Canto said.

For a Barrett's patient with low-grade dysplasia, the AGA recommends an EGD every 6 months for 1 year, then increasing the surveillance interval to every 1-2 years. The ACG guidelines are similar, but recommend surveillance every year.

For a Barrett's patient with high-grade dysplasia, the American Society for Gastrointestinal Endoscopy recommends confirming the diagnosis with two experienced pathologists, then offering the patient surgery or endoscopic therapy (Gastrointest. Endosc. 2006;63:570-80). The patient should undergo surveillance every 3 months for at least 2 years.

The ACG guidelines are similar but recommend endoscopic mucosal resection for more severe disease.

Preliminary results from a prospective multicenter study of 618 patients show that the prevalent cancer risk within 1 year of diagnosing the index lesion was 6.7% (Clin. Gastro. Hepatol. 2006;4:566-72). When the researchers followed the patients, the risk of cancer in patients with no dysplasia was 0.5% a year, and in those with low-grade dysplasia, it was similar, at 0.6% a year.

So far, regression of low-grade dysplasia has occurred in 66% of the patients. Dr. Canto pointed out that 53% of the incident high-grade dysplasias or cancers developed after two EGDs with no dysplasia.

"What if you have the patient back at year 5 according to the AGA guidelines, but the patient developed a Barrett's cancer or high-grade dysplasia in year 2? We don't have the evidence for increasing the surveillance intervals. In fact, preliminary evidence suggests Barrett's high-grade dysplasia or cancer might be missed if you followed the AGA guidelines."

Screening for Barrett's esophagus and associated neoplasia presents another quagmire. ACG guidelines state that patients with chronic GERD symptoms are most likely to have Barrett's esophagus and should undergo upper endoscopy, but an AGA technical review concluded there is no direct evidence that has validated screening for esophageal cancer in the United States. This is in part because 40% of Barrett's patients with cancer have no GERD symptoms and fewer than 4% have Barrett's diagnosed before the cancer is diagnosed.

Endoscopic tools for screening include a standard videoendoscope (sedated or unsedated), an unsedated thin videoendoscope, an office-based thin battery-powered endoscope, and wireless capsule endoscopy. ■