Study examines repeat colonoscopy in patients with polyps referred for surgery without biopsy-proven cancer

28 January 2014

A new study reports that in the absence of biopsy-proven invasive cancer, a second colonoscopy done at an expert center may be appropriate to reevaluate patients referred for surgical resection. In the study, 71 percent of the lesions referred for surgery were noncancerous polyps (growths in the colon) and were treatable endoscopically. In 26 percent of cases, previous removal was attempted by the referring physician but was unsuccessful. Endoscopic treatment was performed as an outpatient procedure without serious adverse events, and hospital admission for overnight observation was necessary in only six percent of patients. The study appears in the January issue of *GIE: Gastrointestinal Endoscopy*, the monthly peer-reviewed scientific journal of the American Society for Gastrointestinal Endoscopy (ASGE).

Endoscopic resection (removal) of colorectal precancerous polyps is an integral part of colorectal cancer screening and prevention programs. Limitations of endoscopic polyp resection include adverse events such as bleeding and perforation, significant local recurrence rates, and technical inability to resect some lesions. Large flat and sessile lesions can be particularly difficult to resect endoscopically; these lesions are often treated surgically. However, surgical resection entails significant morbidity and is associated with a low but significant risk of serious adverse events even when performed at expert centers. Recent studies have demonstrated that endoscopic mucosal resection (EMR) of large sessile and flat lesions is technically feasible and can be performed with a low risk of adverse outcomes by gastroenterologists specifically trained in this technique.

EMR is a technique in which a needle is passed through the endoscope and a liquid solution is injected under the area of interest, in effect "lifting" the abnormal tissue and separating it from the deeper intestinal layers. The abnormal lesion is then removed ("resected") with a snare; the tissue is subsequently retrieved and sent to a pathologist for evaluation.

"Although multiple studies have described outcomes of patients referred to specialized interventional colonoscopy centers for polyp resection from general colonoscopy programs, less is known about the potential endoscopic resectability of large or difficult to remove polyps in patients referred for surgery directly from general colonoscopy programs," said study lead author Shai Friedland, MD, Stanford University, Palo Alto, Calif. "The aim of our study was to evaluate the outcomes after repeat colonoscopy at a tertiary care center in these patients. We found that the majority of colon polyps referred for surgery without biopsy-proven cancer can be resected endoscopically. The risks of endoscopic treatment are acceptably low. Although recurrence rates are high, these too can be successfully treated endoscopically."

**Methods**

This was a single center, retrospective study at Stanford University, Palo Alto, Calif. The study objective was to analyze the results of routine repeat colonoscopy in patients referred for surgical resection of colon polyps without biopsy-proven cancer. Electronic records of all patients referred to a colorectal surgery practice and an interventional colonoscopy clinic between December 2010 and March 2013 were reviewed. During this period, standard practice was to schedule all patients referred for colorectal surgery of colon polyps without biopsy-confirmed cancer for a repeat colonoscopy because the institution's colorectal surgery team believed strongly that surgical
treatment of endoscopically resectable adenomas (precancerous polyps) is unnecessarily aggressive.

Colonoscopy was performed by an endoscopist with extensive experience in EMR, having performed more than 1,000 EMR procedures in the past 10 years. At the repeat colonoscopy, EMR was attempted when the lesion did not have definite features of deeply invasive cancer (converging folds, firm consistency with a surface pit pattern suggestive of invasion, nonlifting not because of previous endoscopic interventions). All patients were evaluated for procedural adverse events with a phone call or clinic visit at least 10 days after the procedure.

**Results**

There were 38 lesions in 36 patients; 71 percent of the lesions referred for surgery were noncancerous polyps and were treatable endoscopically. In 26 percent of cases, previous removal was attempted by the referring physician but was unsuccessful. Endoscopic treatment was performed as an outpatient procedure without serious adverse events, and hospital admission for overnight observation was necessary in only six percent of patients. The researchers noted that the major limitation of endoscopic treatment was a high local recurrence rate of 50 percent, although in keeping with results from other studies, recurrences were successfully treated on follow-up colonoscopy. The favorable results in this study suggest that most lesions currently referred for surgery are amenable to endoscopic treatment.

According to the researchers, the decision of whether to refer a patient to an interventional colonoscopy center versus surgical resection may depend on multiple factors, including whether the endoscopist who performed the initial colonoscopy believes that reasonable endoscopic methods to remove the polyp have been exhausted. However, endoscopist inexperience or an unwillingness to tackle technically challenging lesions because of time constraints or perceived risk may also contribute to the decision.

In an accompanying editorial, Alan Moss, MBBS (Hons), MD, FRACP, Department of Endoscopic Services, Western Health, Melbourne, Australia, states “The pathway for patients between EMR and surgery is a 2-way street. EMR proceduralists should have the support of that center’s colorectal surgical team, because in the event of a major adverse event, urgent surgery may be required. At our center we are fortunate to have this support, and as many referrals for EMR come from colorectal surgeons as from gastroenterologists. Many cases are discussed in a multidisciplinary setting involving gastroenterologists, colorectal surgeons, oncologists and pathologists to determine the best management approach. Some patients are deemed likely to be better served by surgical management at the outset. Patients who proceed to EMR but cannot be successfully treated endoscopically are promptly referred back for surgery. This process and that described by Friedland et al serve as potential models.”

Provided by American Society for Gastrointestinal Endoscopy