Endoscopic Mucosal Resection Can Cut Costs

BY DAMIAN McNAMARA

ORLANDO — With an average cost just over $2,000, endoscopic mucosal resection of colorectal lesions can be an effective and less expensive alternative to surgery, according to a recent study.

Endoscopic mucosal resection (EMR) is a standard technique useful for resection of large sessile and flat lesions, Dr. Tonya Kaltenbach said. However, "despite efficacy data, [patients are] often referred for surgical resection."

The "total cost of endoscopic mucosal resection of large colon lesions is approximately one-fifth the cost of surgical resection," Dr. Kaltenbach said at the annual meeting of the American College of Gastroenterology.

Polyp size may make a difference in cost considerations, according to a previous study (Clin. Gastroenterol. Hepatol. 2007;5:1076-9). Researchers compared 184 consecutive patients with sessile colorectal polyps 2 cm or larger with another 184 consecutive controls with smaller sessile or pedunculated polyps. Longer colonoscopy time (mean 51 minutes vs. 20 minutes) and use of more equipment increased costs substantially among patients with larger polyps.

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For the current study, Dr. Kaltenbach and her associates retrospectively studied 141 consecutive patients over 2 years; all were referred to an urban tertiary care center for endoscopic resection of a colon or rectal lesion. Gastroenterologists referred 118 cases, and surgeons referred the remaining 23 patients.

A single endoscopist at Interventional Endoscopy Services treated all the patients. A total of 91 patients (65%) were men, mean age was 67 years, and mean lesion size was 28 mm (range, 6-80 mm). Mean procedure time was 51 minutes.

Surgery was recommended to 27 patients (19%). Reasons included a nonlifting sign (12 patients), invasive cancer detected before EMR (9 patients), and a large lesion size (6 patients).

The endoscopist successfully removed 114 lesions (81%) using EMR. A total of 77 of these lesions (55%) were flat and 60% were located in the right colon. Just more than half, 55%, of the resected lesions had high-grade histopathology or villous features, said Dr. Kaltenbach, a gastroenterologist and interventional endoscopist at California Pacific Medical Center's Interventional Endoscopy Services in San Francisco.

Complications included one bleed and one hospitalization. There were no perforations.

"Endoscopic resection costs were slightly above $2,100," Dr. Kaltenbach said. Specifically, total costs were $2,121 per case, which included $615 in indirect and $1,506 in direct costs. Supplies, use of the postanesthesia care unit, and endoscope charges accounted for 89% of the direct hospital costs.

The overall hospital revenue was positive. "On average, costs were lower than the generated revenue from the hospital perspective," Dr. Kaltenbach said.

In her patient cohort, the hospital costs averaged $17,657 for patients who underwent a partial colectomy for large polyps that were not amenable to endoscopic resection because of cancer invasion or nonlifting properties.

The retrospective design of the study is a possible limitation, Dr. Kaltenbach said.

In addition, the generalizability of findings based on a single endoscopist's experience is unknown.

Assessment of long-term efficacy was a secondary aim of the study. About 40% (46) of the EMR patients had a follow-up examination. The majority of these, 80%, had only a scar at the resection site, and 20% had a minor residual lesion (mean size 4 mm).

Dr. Kaltenbach reported no relevant disclosures. ■