Robotics Can Flatten Laparoscopy Learning Curve

Colorectal surgeons may be able to move directly from open surgery to robot-assisted laparoscopy.

BY KATE JOHNSON
Montreal Bureau

MIAMI BEACH — Although most colorectal surgeons tend to prefer open surgery to laparoscopy, adding robotics to their repertoire could enhance the appeal of this technically demanding procedure, Emilio Morpurgo, M.D., said at a congress on laparoscopy and minimally invasive surgery.

"Robotics offers all the articulation of the human wrist"—something that is absent in the classic laparoscopic approach, said Dr. Morpurgo, of the Center for Minimally Invasive and Robotic Surgery, Hospital of Camposampiero, in Padova, Italy. "It is particularly useful in dissecting, anastomosis, and suturing."

While the laparoscopic learning curve is quite steep, "robotics may be a bridge to that—as it was for urologists, many of whom went directly from open prostatectomy to robot-assisted laparoscopy, without passing through traditional laparoscopy," he told this newspaper.

Dr. Morpurgo presented the results of 90 colorectal procedures (including 46 cancers) performed at his institution using robot-assisted laparoscopy, and compared them with 386 procedures (including 293 cancers) performed using traditional laparoscopy.

Among the procedures were right and left hernicolectomy, resection of transverse and sigmoid colon, low anterior resection, Miles' operation, total/subtotal colectomy, Hartmann's procedure, and rectopexis.

Robot-assisted surgery proved as safe and effective as laparoscopic techniques, he reported at the congress, sponsored by the Society of Laparoendoscopic Surgeons. There were no differences between the groups regarding duration of surgery, recovery of bowel function, length of postoperative stay, or amount of blood loss.

Among those undergoing the robotic procedure, complications required switching eight patients to another procedure: four were converted to hand-assisted surgery because of advanced cancer (three patients) or adhesions (one patient); three to laparoscopy because of technical difficulties, increased CO_2, or bowel distension; and one to laparotomy because of injury to the spleen.

Among those in the laparoscopy group, 34 patients were switched to another procedure: 12 to hand-assisted surgery (5 due to advanced cancer, 3 due to difficulties resulting from obesity, 1 because of adhesions, and 3 nonspecified), and 22 to laparotomy (6 because of advanced cancer, 6 because of bowel distension, 2 because of adhesions, 2 because of splenic injuries, and 6 unspecified).

There were 10 major complications in the robot group (8.8%), including one death from electrolyte imbalance after a small bowel injury. A second case of small bowel injury also occurred. "This may be a new complication unique to this approach, in which it is difficult to see this injury," said Dr. Morpurgo. "If the small bowel has to be manipulated during the procedure, it must be carefully inspected afterward."

A higher percentage of patients in the laparoscopy group (13.2%) had complications, but there were no mortalities. Most complications were because of symptomatic anastomotic leaks in 19 patients, or 5% of the total, which is comparable with results seen with open surgery, Dr. Morpurgo said.

Other complications in this group included wound/perineal complications (seven patients), bleeding from trocars (six), abdominal bleeding (five), and stoma complications (four).

"Colorectal surgeons have to start doing more minimally invasive surgery," said Dr. Morpurgo. "Since laparoscopy is not usually performed by colorectal surgeons, the robot can render an operation more like an open surgery, with all the benefits of laparoscopy."

William Kelley, M.D., a general surgeon who practices in Richmond, Va., agreed that robotic surgery can make the laparoscopic approach less intimidating for colorectal surgeons. A fair number of U.S. colorectal surgeons have already familiarized themselves adequately with laparoscopic techniques, he said.

"Colon cancer is one of the hottest areas for robotic surgery," said Dr. Kelley, who also is director of general surgery at the Minimally Invasive Surgery Center in Richmond, Va. ■

Cilansetron Benefits Patients With Diarrhea-Predominant IBS

BY SHARON WORCESTER
Tallahassee Bureau

ORLANDO, FLA. — Cilansetron is safe and effective and improves health-related quality of life in patients with diarrhea-predominant irritable bowel syndrome, according to two studies presented at the annual meeting of the American College of Gastroenterology.

In one double-blind, randomized, placebo-controlled study, a 2-mg dose of the 5-hydroxytryptamine $(HT)_3$ receptor antagonist used three times daily was well tolerated and significantly improved symptoms in both men and women treated for up to 3 months.

A total of 692 patients were enrolled in the study. Adequate relief during at least half of the study weeks was reported by 49% of those in the treatment group and 28% of those in the placebo group, reported Philip B. Miner, M.D., president and medical director of the Oklahoma Foundation for Digestive Research, Oklahoma City.

Those in the treatment group reported significantly more relief from abdominal pain and discomfort (52% vs. 37%), and from abnormal bowel habits (51% vs. 26%) during the study. Solvay Pharmaceuticals GmbH, which is developing the drug for the treatment of IBS, sponsored this research.

Adverse events causing withdrawal from the study occurred in 12% of patients in the treatment group and 6% of those in the placebo group. Constipation, abdominal pain, and headache were the most common complaints leading to withdrawal from the treatment group, but no serious complications resulted from treatment, Dr. Miner said.

In another double-blind study, cilansetron improved health-related quality of life.

A total of 792 patients were randomized to receive placebo or treatment with 2 mg cilansetron three times daily for 6 months. A 34-item IBS-specific quality of life measure (the IBS-QOL) was administered at baseline and at the end of the study, Douglas A. Drossman, M.D., of the University of North Carolina, Chapel Hill, reported in a poster.

The baseline mean overall IBS-QOL scores were 55 in the treatment group and 55.5 in the placebo group. Higher scores on the 100-point scale indicate better quality of life; at the end-of-study assessment, scores had increased by about 18 points in the treatment group, which was a significantly greater jump than was the 10-point increase in the placebo group.

The differences in baseline and end-of-study scores for the cilansetron vs. the placebo groups were significant for seven of eight subscales, with the greatest differences seen in the scales measuring interference with activity (22-point vs. 11-point increase), food avoidance (19-point vs. 8-point increase), and dysphoria (22-point vs. 13-point increase). These measures showed the lowest levels of quality of life at baseline, with scores ranging from 44 to 49 points.

Only the subscale measuring the sexual effects of IBS showed no significant improvement with treatment vs. placebo (7-point vs. 4-point increase). This measure had the highest quality of life score at baseline at 76 points in both groups, Dr. Drossman noted.

The findings suggest that cilansetron improves overall health-related quality of life in addition to relieving specific symptoms of IBS, he said. ■

More Colorectal Screenings Advised Than Performed in West Virginia

WASHINGTON — Most primary care physicians in West Virginia believe that their resources are adequate for colorectal cancer screening despite perceived barriers including patient inconvenience and physician reimbursement, Cathy A. Coyne, Ph.D., reported in a poster presented at the annual meeting of the American College of Preventive Medicine.

Dr. Coyne, of the department of community medicine at West Virginia University, Charleston, compared the attitudes and practices of West Virginia physicians with a national survey conducted by the National Cancer Institute in 2000.

In a survey of 569 West Virginia-based primary care physicians, more than 96% said that they recommended colorectal cancer screening to average-risk patients. Of these, 31% reported recommending a colonoscopy, compared with 3%-13% of primary care doctors who responded to the NCI survey. By contrast, 7.5% of the West Virginia doctors reported recommending a fecal occult blood test, compared with 22%-30% of doctors in the NCI survey. Although 19% of West Virginia physicians reported using a digital rectal exam plus a fecal occult blood test in their offices, the NCI survey did not include a DRE, since it is not a nationally recommended screening method.

The U.S. Agency for Healthcare Research and Quality recommends colorectal screening for all average-risk adults aged 50 years and older using any of several methods including fecal occult blood testing every year, flexible sigmoidoscopy every 5 years, combined use of fecal occult blood testing every year and flexible sigmoidoscopy every 5 years, double-contrast barium enema every 5 to 10 years, or colonoscopy every 10 years.

Colonoscopy was the most frequently recommended screening method, but it was also the procedure most often associated with barriers. Nearly 60% of the West Virginia physicians reported patient inconvenience as a barrier to colonoscopy, 47% reported patient refusal or poor compliance, and 39% reported reimbursement problems. Test inconvenience for patients, patient refusal or poor compliance, and physician reimbursement were also the most common barriers to fecal occult blood tests and flexible sigmoidoscopy reported by the physicians.

Given these perceived barriers, "we were surprised that most of the doctors reported that their capacity to conduct colorectal screening was sufficient to meet the local demand," Dr. Coyne said in an interview.

Although 77% of the physicians reported that more than 50% of their patients were complying with recommended colorectal screening guidelines, data from the 2001 Behavioral Risk Factor Surveillance System in West Virginia show that only 30% of adults aged 50 years and older were screened for colorectal cancer.

—Heidi Splete