# Pioneering Work in Colon Cancer

## The option of laparoscopically assisted surgery has been shown safe and cost effective

**BY CONOR P. DELANEY, MD, MCH, PHD**

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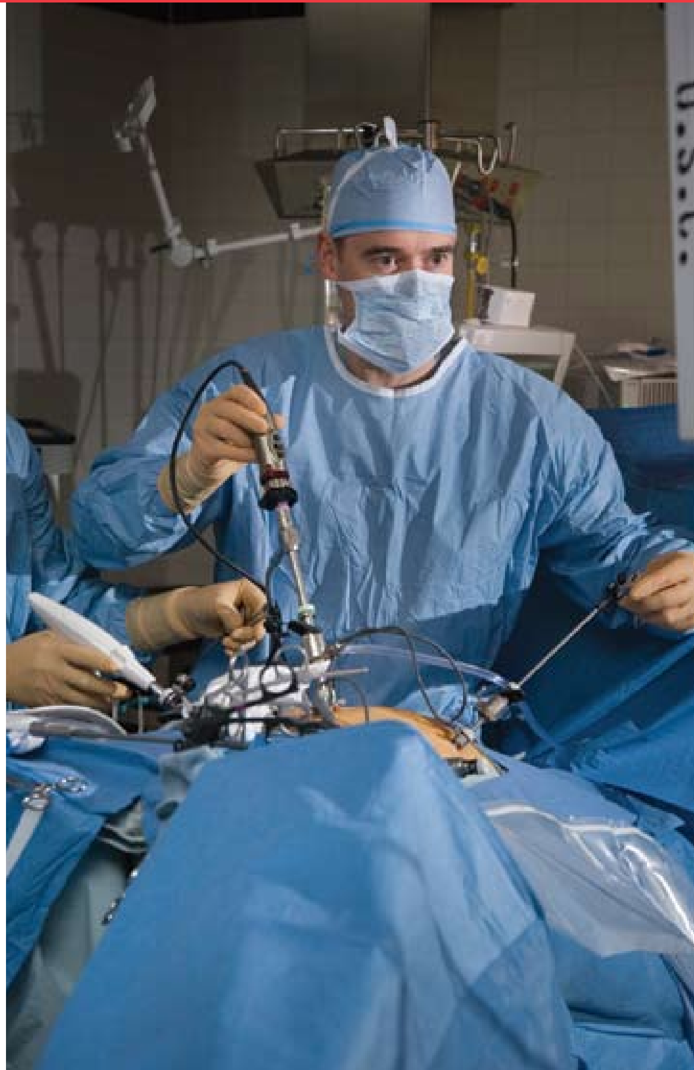
Laparoscopic assisted surgery was first considered for use in patients undergoing colectomy for colon cancer in 1990. Several concerns were raised, however, including questions of how well laparoscopic surgery would compare with conventional open colectomy in achieving proper resection, whether it would provide adequate information about staging, and whether it would result in higher rates of tumor recurrence at wound and trocar sites. A literature review published in 2001 attempted to answer some of these critical questions, but the author found that little high-level data had been published comparing the safety and efficacy of laparoscopic-assisted resection of colorectal malignancies with open colectomy. The data that were available seemed to indicate no difference in perioperative mortality, long-term survival, complications, lymph node harvest or resection margins. The available literature also included reports of increased operative time (by about 50 minutes) and decreased hospital stay (reduced from eight to six days) and time to bowel function.

The first truly comprehensive set of data was provided by a prospective, randomized trial that compared laparoscopically assisted and open surgery for curable colon cancer in 872 patients treated at 48 institutions. The median patient follow-up was 4.4 years, and the primary endpoint for the trial was the time to tumor recurrence. The study began in 1994; results were published in 2004 and provide several important comparisons of the two procedures. The rates of cancer recurrence were similar in the two groups (16 percent for laparoscopically assisted surgery versus 18 percent for open colectomy), with recurrence rates in surgical wounds less than 1 percent in both groups. Overall survival was also similar (86 percent laparoscopic versus 85 percent open) with no significant difference between groups in the time to recurrence or overall survival for patients with any stage of cancer. Faster recovery and briefer use of parenteral narcotics and oral analgesics were reported in the patients with laparoscopic surgery versus the open colectomy group. The two groups did not differ in rates of intraoperative complications, 30-day postoperative mortality, complications at discharge and 60 days, hospital readmission, and reoperation.



Conor Delaney, MD, MCh, PhD, performs a minimally invasive procedure for colorectal cancer.

Additional studies also support the conclusion that laparoscopically assisted surgery for colorectal cancer is very reliable when performed by an experienced colorectal surgeon. Physicians at University Hospitals Ireland Cancer Center have extensive experience in minimally invasive colon cancer surgery and consider it an important option for patients. The surgery has been shown repeatedly to be safe and cost effective, with accelerated postoperative recovery and fewer postoperative complications for patients with cancer. Hospital stay is reduced by an average of two days, and time to full recovery reduced by about 50 percent. No differences have been found in tumor recurrence rate or overall cancer survival rate. This minimally invasive surgery is currently considered the optimal approach for most colon cancers, and many rectal cancers, although further studies continue to be performed at UH Ireland Cancer Center and other institutions for the assessment of its use for rectal cancer surgery.