

Frailty Calls for Deferring Some Appendectomies

VITALS

Major Finding: Nonoperative management of acute appendicitis in 37 cancer patients led to acute failure in 3 patients (2 of whom died), eventual surgery in 5 patients, and death in another 3 patients, with 26 patients having a successful outcome.

Data Source: Review of 109 cancer patients who developed acute appendicitis at a single U.S. center during 1999-2009.

Disclosures: Dr. Fancher and Dr. Sawyer each reported no relevant disclosures.

BY MITCHEL L. ZOLER

FROM THE SURGICAL INFECTION SOCIETY
ANNUAL MEETING

LAS VEGAS — Nonoperative management proved to be a safe and effective approach for treating selected cancer patients with acute appendicitis, based on outcomes of 109 patients treated at a single center.

"Nonoperative management is appropriate for selected patients with acute appendicitis," Dr. Tiffany T. Fancher said at the meeting. Of the 109 cancer patients she reviewed, 37 (34%) had their surgery either deferred or avoided, a rate substantially higher than the roughly 5% incidence seen in the general adult population. Most of the 37 patients survived and did not need to have their appendix removed during follow-up, said Dr. Fancher, a surgeon at Memorial Sloan-Kettering Cancer Center in New York.

"Nonoperative management of acute appendicitis in adults is still uncommon, but is becoming more and more accepted" in patients judged to be too critically ill, elderly, or frail for immediate

surgery, commented Dr. Robert G. Sawyer, professor of surgery and public health sciences and chief of acute care surgery at the University of Virginia, Charlottesville.

Those patients whose surgery is deferred are placed on an antibiotic regimen that might either eventually resolve the acute inflammation and obviate

the need for surgery, or make it safer to undergo surgery.

The need for nonoperative management has risen recently with the increased incidence of acute appendicitis in the elderly, a phenomenon probably brought about by improved diagnosis of acute appendicitis using CT scans, Dr. Sawyer said in an interview. A poster presented at the meeting by surgeons at the University of Kentucky, Lexington, documented that in 2,007 of the roughly 3,500 patients who presented with acute appendicitis in the state, 9% were 65 years or older.

The series reviewed by Dr. Fancher included all cancer patients diagnosed with acute appendicitis at Memorial Sloan-Kettering during July 1999-July 2009. Among the 37 patients triaged to nonoperative management, the most common reasons were the presence of an abscess or phlegmon, or mild appendicitis symptoms. Other reasons included patients at high risk for undergoing surgery, patients with end-stage cancer and, in one case, a patient who refused surgery.

Three patients initially targeted for nonoperative management failed that approach; two of them died. Of the remaining 34, 5 eventually required an appendectomy, and an additional 3 patients died, with the remaining 26 surviving and successfully avoiding surgery. The median age of these 34 patients was 59 years. A third had received cancer chemotherapy within the 30 days prior to developing acute appendicitis. Their nonoperative management included an average 12-day antibiotics course. A quarter also underwent percutaneous

drainage of their infection.

During the 16 months following acute appendicitis, 4 patients managed nonoperatively had recurrences, all of them within the first 4 months after the index episode (eight patients were not followed beyond 6 months). A third of the patients in the nonoperative group resumed their chemotherapy regimen, and none of them had recurrent appendicitis.

Limitations of this analysis include the small number of patients at a single center and the retrospective design, Dr. Fancher said. ■

When Surgery Risks Are High

"Nonoperative management of acute appendicitis has never been subjected to a scientifically vigorous assessment, but people are beginning to wonder whether selected cases can be [better] managed nonoperatively. Maybe 5% of patients with acute appendicitis are managed nonoperatively, with the other 95% undergoing an appendectomy. It's a question of selecting patients."

Ideal candidates are "patients whose disease is so advanced that their surgery is more likely to be technically challenging and with an increased risk for a higher rate of complications." For most patients, "there is very little morbidity with an appendectomy, particularly now that it can be done laparoscopically. The typical patient stays in the hospital for less than 24 hours. When

you manage a patient nonoperatively, they have a longer hospital stay and may require rehospitalization later if they are one of the 20% of patients who need an interval appendectomy. So, it may be more expensive to manage appendicitis nonoperatively."

The potential advantage of nonoperative management is that patients with an advanced infection "may end up needing a bigger operation. With medical management, if they need surgery," eventually "it may be a smaller operation after their inflammation subsides."

DR. PHILIP S. BARIE is professor of surgery and public health and chief of critical care and trauma at Weill Cornell Medical Center in New York. He said he had no relevant disclosures.

Laparoscopic Surgery for Diverticulitis Halves Complications

BY JENNIE SMITH

FROM THE JOURNAL
GASTROENTEROLOGY

Laparoscopic surgery to treat diverticulitis is associated with half as many complications as open surgery, according to a study of nearly 7,000 surgeries performed over a 3-year period, reported Dr. Andrew Russ and colleagues.

Investigators at the University of Wisconsin, Madison, led by Dr. Gregory D. Kennedy, examined records from the American College of Surgeons' National Surgical Quality Improvement Program, a database of information on surgeries performed in participating U.S. hospitals (Gastroenterology 2010 June [doi:10.1053/j.gastro.2010.02.048]).

The research team identified records from all patients who had undergone any of 11 coded surgical procedures for diverticular disease from 2005 to 2008. Patients who had emergency

surgeries were omitted. Of the 6,970 patients remaining, 3,468 underwent an open resection procedure and 3,502 underwent a laparoscopic procedure.

The incidence of complications—including infections, pneumonia, deep vein thrombosis or pulmonary embolism, and postoperative sepsis or septic shock—was markedly lower in the laparoscopic group, with overall complications in the month after surgery reduced by nearly half, from 21.7% in the open group to 11.0% in the laparoscopic group. Hospital stays were reduced by more than a third, from an average of 7.8 days in the open group to 4.8 days for the laparoscopic patients.

However, the patients undergoing laparoscopic surgeries also happened to be younger (mean age 55.6 vs. 59.2 years for open surgery) and had fewer comorbidities, and this "is the

crux of the difficulty with this paper," Dr. Kennedy said in an interview. The nonrandomization of the study was another limitation, he said, as was the fact that most of the surgeries were performed in academic hospitals with high-volume colorectal surgery centers.

Incidence of complications, including infections, pneumonia, deep vein thrombosis or pulmonary embolism, and postoperative sepsis, was markedly lower in the laparoscopic group.

Also, poor wound condition was evident in more than 20% of the open surgeries. Although the investigators did not include any emergency surgeries (defined as those initiated within 12 hours of hospital admission), the fact that one-fifth of wounds in the open surgery group were classed as "dirty" or "infected," compared with only 5.1% in the laparoscopic group, suggests that many

of the open surgeries "could be considered on some level urgent," Dr. Kennedy said.

But when the investigators used statistical models to correct for complication risks, such as wound condition, American Society of Anesthesiologists physical status classification, and

recent surgeries, they found that the risk of developing complications was roughly 50% lower after a laparoscopic procedure, compared with an open procedure.

"What we saw was that laparoscopy at least correlated with an improved outcome," Dr. Kennedy said. "It is at least contributing to a 50% reduction" in complications.

He and his colleagues noted that, despite a growing body of research suggesting laparoscopy to be the safer option, it remains far from surgeons' first choice for diverticulitis. Currently, in

the United States, Dr. Kennedy said, the availability of the procedure "depends largely on the market; if you're in Chicago and go for a colon surgery, nearly every surgeon will offer it. In other states, and in many rural areas, people are not performing or even offering laparoscopy."

One reason for the hesitation, the investigators speculated, could be that laparoscopic surgeries for diverticular disease had been previously associated with high rates of conversion to open surgeries. But currently, they wrote, conversion rates are between 20% and 26%, "not dissimilar to current large series reports on conversion rates for neoplastic disease."

Another reason, they said, could be the longer operating times associated with laparoscopic surgery.

The study was funded by the University of Wisconsin. Neither Dr. Kennedy nor any of his coauthors cited competing interests. ■