

Current guidelines from the American Association for the Study of Liver Diseases and the Infectious Diseases Society of America do not recommend the use of SMV and SOF in patients with Child-Pugh B/C cirrhosis because of safety concerns [www.hcvguidelines.org. Accessed May 29, 2015]. However, Dr Saxena conjectured that these difficult patients (mostly those with Child-Pugh B cirrhosis) can be successfully treated and that data from this study may help inform future treatment recommendations.

DIRECT Trial Shows Surgery Better Than Conservative Treatment for Diverticulitis

Written by Brian Hoyle

The multicenter, randomized, controlled DIRECT trial [NTR1478] comparing surgical vs conservative treatment of diverticulitis in 109 patients revealed a significant benefit of surgery at 6 months.

According to Marguerite Stam, MD, Meander Medical Center, Amersfoort, The Netherlands, first cases of diverticulitis overwhelmingly (90% of cases) are mild. In the aftermath, 30% to 40% of patients will report no complaints, 30% will be persistently symptomatic, and 30% will experience recurrences.

For those with symptoms and recurrence, the decision of whether to operate or not is controversial. Little evidence for decision making is available, with only 1 small prospective study [Forgione A et al. *Ann Surg.* 2009] and 1 retrospective study [Pasternak I et al. *Int J Colorectal Dis.* 2012] published. The DIRECT trial sought to provide further clarification.

From mid-2010 to mid-2014, patients from 27 centers in The Netherlands were randomized to conservative or operative treatment of their diverticulitis. The primary end point was quality of life measured by the Gastrointestinal Quality of Life Index (GIQLI), SF-36 Healthy Survey Update (SF-36), EuroQOL 5-dimension questionnaire (EQ-5D), and a visual analog scale ranking of pain. Secondary outcomes included mortality and morbidity at 6 months.

Inclusion criteria included patients aged 18-75 years, persistent abdominal complaints (continuing lower left abdominal pain, altered bowel habits, and persistence of symptoms for >3 months), frequent recurrence of diverticulitis, signs of inflammation, and American Society of Anesthesiology ranking I, II, or III. Exclusion criteria were prior sigmoidectomy, stenosis, perforation, fistula, malignancy, and inability to complete questionnaires.

The target number of patients in the intention-to-treat analysis was 214. However, accrual was slow and challenging because of preferences for surgery or conventional treatment. As a result, and considering the clinical relevance of the study, enrollment was ended early.

The 109 enrolled patients were randomized to surgery (n=53), with 47 patients ultimately receiving surgery and 6 electing to receive conservative treatment, or conservative treatment (n=56), with 43 patients choosing this option and 13 opting instead for surgery. At baseline, the surgery and conservative treatment groups were comparable for age, body mass index, sex, number of recurrences, and duration of ongoing symptoms.

Most of the surgical treatments were laparoscopy involving primary anastomosis. Complications in the surgery group included anastomotic leakage (13%), stenosis (4%), surgical site infection (9%), ileus >7 days after surgery (8%), and cardiovascular/pulmonary events (4%). Among the 13 patients randomized to conservative treatment who elected surgery, recurrences occurred in 5.

At 6 months, the primary end points of GIQLI, active physical health component of SF-36, EQ-5D, and pain favored surgery ($P=.0001$, $P=.0106$, $P=.0013$, and $P<.0001$, respectively). In the aforementioned 13 patients, the outcomes with surgery were not significantly different from baseline rankings.

Recurrence of symptoms in all patients receiving surgery comprised 8 cases, all occurring prior to surgery.

The DIRECT trial revealed significant quality of life benefit of elective resection over conventional treatment for patients with diverticulitis. The results are important in the counseling of patients concerning treatment.