Laparoscopic resection not better in rectal cancer

In rectal cancer, laparoscopic resection does not yield better outcomes compared with open resection, two new studies suggest.

In the first study—a phase 3 randomised trial—James Fleshman (Baylor University Medical Center, Dallas, TX, USA) and colleagues enrolled 486 patients with stage II or III rectal cancer from 35 institutions in the USA and Canada. 240 patients underwent laparoscopic resection and 222 underwent open resection. Successful resection occurred in 81.7% (95% CI 76.8–86.6) of laparoscopic resections and 86.9% (82.5–91.4) of open resection: which did not support the non-inferiority hypothesis (difference −5.3% [95% CI −10.8 to infinity]; p for non-inferiority=0.41). The operative time was significantly longer for laparoscopic resection than for open resection (mean 266.2 mins vs 220.6 mins; mean difference 45.5 mins [95% CI 27.7–63.4]; p=0.001); however, there was no significant difference between procedures in terms of length of hospital stay, readmission within a month, or severe complications. Fleshman said, “I will continue to recommend that patients should be treated by expert surgeons with clear focus on rectal cancer and their results of treatment with any form of minimally invasive surgery be followed in a prospective way for publication and/or audit”.

The second study—also a phase 3 randomised trial—was conducted by Andrew Stevenson (University of Queensland, Brisbane, QLD, Australia) and colleagues, and included 475 patients with T1–T3 rectal adenocarcinoma from 24 sites in Australia and New Zealand. 237 patients underwent open laparotomy and rectal resection and 238 underwent laparoscopic rectal resection. Successful resection occurred in 194 (82%) patients who underwent laparoscopic resection and 208 (89%) patients who underwent open resection (difference −7.0% [95% CI −12.4 to infinity]; p for non-inferiority=0.38). There was no significant difference between the treatment groups in terms of length of hospital stay, intensive-care unit stay, or analgesic requirement.

Stevenson commented, “We obviously need to wait for the long-term results, but in the meantime, surgeons may wish to consider with a bit more caution the sort of patients on which they choose to do the pelvic dissection laparoscopically”. Sang Won Lee (University of Southern California, Los Angeles, CA, USA) said, “Open surgical resection for distal rectal cancer still remains the standard of care. Laparoscopic resection is investigational.”

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