

Minimally invasive oesophagectomy for oesophageal cancer



A new study shows that hybrid minimally invasive oesophagectomy, when compared with open oesophagectomy, results in a lower frequency of pulmonary complications without negatively affecting overall or disease-free survival in patients with oesophageal cancer.

Christophe Mariette (deceased, but formerly at Claude Huriez University Hospital, Lille, France) and colleagues did a multicentre, randomised, phase 3 trial. 207 patients with resectable cancer of the middle or lower third of the oesophagus were randomly assigned (1:1) to the hybrid minimally invasive surgery (abdominal-thoracic operation with laparoscopic gastric mobilisation and open right thoracotomy) or to the open procedure (transthoracic open oesophagectomy). The primary endpoint was major intraoperative complications or postoperative complications of grade

2 or worse, according to the de Clavien-Dindo classification, within 30 days of the procedure. Secondary endpoints included disease-free survival and overall survival.

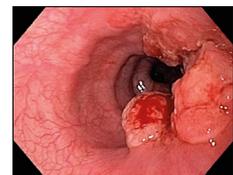
37 (36%) of 103 patients in the hybrid procedure group had a major intraoperative or postoperative complication, compared with 67 (64%) of 104 patients in the open-procedure group (odds ratio 0.31, 95% CI 0.18–0.55, $p < 0.001$). 3-year overall survival was 67% (95% CI, 57–75) in the hybrid procedure group and 55% (45–64) in the open-procedure group, and disease-free survival was 57% (47–66) in the hybrid procedure group and 48% (38–57) in the open-procedure group. 5-year survival estimates were similar to those at 3 years.

Co-author Guillaume Piessen (Claude Huriez University Hospital, Lille, France) said "In addition to a

69% reduction in major intra- and postoperative morbidity and a reduction of 50% of major pulmonary complications, 3-year and 5-year overall survival was non-inferior in the laparoscopic group. The results on survival are clinically relevant and may be related to the decreased risk of severe complications."

Jesper Lagergren (King's College London, London, UK) explained "This provides valid proof of concept supporting the use of the hybrid approach in these patients. It is important to assess potential differences in long-term survival after various surgical approaches for oesophagectomy in large randomised clinical trials. It would also be valuable to compare the hybrid approach with a totally minimally invasive approach in a large randomised clinical trial."

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For more on the study by Mariette and colleagues see *N Engl J Med* 2019; **380**: 152–62