

ABSTRACT SUPPLEMENT

FA01: Featured Abstracts I: Malignant (15 minutes each)

Chairs: Masahiko Yano, Japan & Andrew Chang, USA
Room: Hórsaal 01

FA01.01: MINIMALLY INVASIVE APPROACH RESULTS IN BETTER OUTCOME COMPARED TO OPEN ESOPHAGECTOMY—A PROPENSITY SCORE MATCHED ANALYSIS

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Background: Esophagectomy remains the mainstay treatment for esophageal cancer. Minimally invasive techniques have gained popularity in recent years. Whether minimally invasive methods result in equivalent or superior outcome to open esophagectomy or not is still controversial. The aim of the current study is to compare outcomes of minimally invasive and open esophagectomy from a single institution, using propensity score matching to lessen biases.

Methods: From 1994–2016, 724 patients with squamous cell cancer of the esophagus who underwent esophagectomy were studied. Data were retrieved from a prospectively collected database. Patients were divided into two groups: 453 had open esophagectomy (open group), and 271 had VATS esophagectomy with gastric mobilization either via laparotomy or laparoscopically (MIE group). A propensity score was generated for each patient based on age, gender, tumor level, use of neoadjuvant therapy, American Society of Anaesthesiologists (ASA) score, pathologic stage of disease, site of anastomosis, and residual tumour (R) categories and the two matched groups were compared in clinico-pathological features, morbidity and mortality rates, and long-term survival. All statistical calculations were performed with SPSS version 24 (SPSS, Chicago, IL).

Results: A total of 158 patients in MIE and 187 in open group are matched for comparison (1:3 matching). MIE resulted in less blood loss (220 vs 400ml, $P < 0.001$) but longer operative time (461 vs 305 mins, $P < 0.001$). Wound infection (3.7% vs 10.7%, $P = 0.01$) and respiratory complications (29% vs 55.1%, $P < 0.001$) were also less in MIE group. Except for a higher rate of conduit ischemia (6.3% vs 1.6%, $P = 0.02$), MIE had comparable surgical outcomes with open technique in rates of anastomotic leakage (5.7% vs 5.3%, $P = 0.89$), recurrent laryngeal nerve palsy (20.1% vs 18.7%, $P = 0.10$), reoperation (10.8% vs 8.6%, $P = 0.49$), and length of postoperative hospital stay (13 vs 14 days, $P = 0.50$). Lymph node harvest was significantly higher with MIE (35 vs 21, $P < 0.001$), a longer median survival was also evident compared to the open group (42.3 vs 24.7 months, $P = 0.03$).

Conclusion: Although requiring longer operative time, MIE led to less wound and respiratory complications without jeopardizing surgical and oncological outcome. The more comprehensive lymphadenectomy could potentially improve prognosis.

Disclosure: All authors have declared no conflicts of interest.

Keywords: minimally invasive esophagectomy, Esophageal cancer

FA01.02: THE EFFECT OF POSTOPERATIVE COMPLICATIONS AFTER MIE ON LONG-TERM SURVIVAL: A RETROSPECTIVE, MULTI-CENTER COHORT STUDY

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Background: Esophagectomy has a high incidence of postoperative morbidity. Complications lead to a decreased short-term survival, however the influence of those complications on long-term survival is still unclear. Most of the performed studies are small, single center cohort series with inconclusive or conflicting results. Minimally invasive esophagectomy (MIE) has been shown to be associated with a reduced postoperative morbidity. In this study, the influence of complications on long-term survival for patients with esophageal cancer undergoing a MIE were investigated.

Methods: Data was collected from the EsoBenchmark database, a collaboration of 13 high-volume centers routinely performing MIE. Patients were included in this database from June 1, 2011 until May 31, 2016. Complications were scored according to the Clavien-Dindo (CD) classification for surgical complications. Major complications were defined as a CD grade ≥ 3 . The data were corrected for 90-day mortality to correct for the short-term effect of postoperative complications on mortality. Overall survival was analyzed using the Kaplan Meier, log rank- and (uni- and multivariable) Cox-regression analyses.

Results: A total of 926 patients were eligible for analysis. Mean follow-up time was 30.8 months (SD 17.9). Complications occurred in 543 patients (59.2%) of which 39.3% had a major complication. Anastomotic leakage (AL) occurred in 135 patients (14.5%) of which 9.2% needed an intervention (CD grade ≥ 3). A significant worse long-term survival was observed in patients with any AL (HR 1.73, 95% CI 1.29–2.32, $P < 0.001$) and for patients with AL CD grade ≥ 3 (HR 1.86, 95% CI 1.32–2.63, $P < 0.001$). Major cardiac complications occurred in 18 patients (1.9%) and were related to a decreased long-term survival (HR 2.72, 95% CI 1.38–5.35, $p 0.004$). For all other complications, no significant influence on long-term survival was found.

Conclusion: The occurrence and severity of anastomotic leakage and cardiac complications after MIE negatively affect long-term survival of esophageal cancer patients.

Disclosure: All authors have declared no conflicts of interest.

Keywords: Esophageal cancer, survival, surgery, minimally invasive esophagectomy

FA01.03: USE OF ‘NON-TUBE NO FASTING’ ERAS PROTOCOL IN PATIENTS AFTER MIE WITH LI’S ANASTOMOSIS: OUTCOMES IN THE FIRST 113 PATIENTS PERFORMED BY A SURGEON AFTER TRAINING COURSE

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Background: Use of enhanced recovery after surgery (ERAS) protocol in the patients after esophagectomy is reported to be feasible and safe in recent studies. And in Prof. Yin Li’s research, patients after minimally invasive esophagectomy (MIE) with Li’s anastomosis took oral feeding on the 1st day after operation (POD1). However, all the esophagectomy-procedures were proceeded by experienced experts. There was no report regarding whether ERAS protocol after MIE with Li’s anastomosis could be safely proceeded by a young surgeon after training course. The aim of this study was to evaluate the feasibility and safety of ‘Non-Tube No Fasting’ ERAS Protocol in patients after MIE with Li’s Anastomosis proceeded by a surgeon after the training course.