AL on POD 3, 4 and 5. Cut-off values of 48, 113 and 90 mg/L had a high sensitivity of 100%, 92% and 92% on POD 3, 4 and 5. No difference in median drain amylase levels was observed.

Conclusion: CRP levels with a cut-off point of 113 mg/L on POD 4 do not improve earlier detection of AL, but has a high sensitivity for excluding AL while the value of drain amylase in the first 5 days after surgery is limited.

718 DIFFERENCES BETWEEN INTRACORPOREAL AND EXTRACORPOREAL GASTRIC TUBE RECONSTRUCTION AFTER ESOPHAGECTOMY: IS THERE A BETTER WAY?

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Introduction: Esophagectomy remains good option to curative intent for esophageal carcinoma. However, quality of life for post-operative symptoms such as reflux, gastric emptying delayed and dysphagia is on debate. Some studies advocate relations between those symptoms to gastric tube conformation and discrepancies between intra and extracorporeal gastric tube construction. We aimed to analyze differences between both methods.

Methods: During 2014–2020, patients underwent to esophagectomy by thoracoscopic approach with cervical anastomosis (McKeown procedure). The abdominal part was performed by totally laparoscopic (group A) or hybrid (group B) hand-assisted gastric tubulization. Clinical parameters, symptoms of reflux, gastric tube evaluated by tomography, post-operative endoscopic findings were assessed and compared between groups. Multivariable analysis was performed.

Results: 36 group A and 56 group B, 55 (59.7%) were squamous cell carcinoma and 60 (66.6%) did neoadjuvant chemoradiotherapy. Mean follow-up was 32 months. Group A had more gastric tube diameter ($p < 0.001$), alimentary stasis ($p < 0.001$), redundant conformation ($p < 0.05$) and distant from axial central point of the thorax ($p < 0.05$); all evaluated by tomography. And also, more symptoms of reflux and gastric empty delay by reflux symptoms index (RSI) ($p < 0.001$); and numbers of esophagitis grade B and C by upper endoscopy ($p < 0.01$). After multivariable analysis, intracorporeal ($p < 0.001$) and diameter more than 4.2 cm ($p < 0.01$) was related to worst RSI.

Conclusion: The intracorporeal gastric tube reconstruction may lead wider gastric tube conformation, which might be related to gastric empty delay, resulting in intense reflux symptoms confirmed by upper endoscopy.

722 SAFE (SUPERCHARGED CERVICAL ANASTOMOSIS FOR ESOPHAGECTOMY AND GASTRIC PULL-UP) PROCEDURE: LONG TERM RESULTS FROM 61 PATIENTS

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Esophagectomy still represents a challenge surgical procedure. Anastomotic leakage is the most feared complication and is likely related to diminished anastomotic perfusion. 'Supercharged' microvascular anastomosis has been performed in select patients to supplement the blood supply to the graft and anastomosis, after esophagectomy. This study aimed to evaluate results after performing the supercharged cervical anastomosis for esophagectomy procedure.

Methods: This prospective cohort study evaluated patients who underwent esophagectomy with gastric reconstruction and cervical anastomosis for locally advanced esophageal carcinoma. Patients were selected in which cervical anastomosis using the supercharged cervical anastomosis for esophagectomy procedure was performed. The anastomotic perfusion areas were evaluated using indocyanine and SPY before and after supercharged cervical anastomosis for esophagectomy. Post esophagectomy complications were also recorded.

Results: The study enrolled 61 patients, which included 47 (77.0%) men, with a mean age of 67.3 years. Median additional surgical time was 112 min (IQ 90–180), Leakage occurred in 1.6% of the patients (microanastomosis thrombosis), whereas the corresponding anastomotic stricture rates were 3.2% (mean follow-up was 25 mounths). Perfusion analyses showed a 28% improvement in the anastomotic area after venous anastomosis and a 37% improvement after arterial and venous anastomosis.

Conclusion: The supercharged cervical anastomosis for esophagectomy procedure may be related to low occurrence of anastomotic leakage and improve perfusion in the anastomotic area via vein and arterial microanastomoses.

824 MOLECULAR UNDERPINNINGS OF NEUROENDOCRINE DIFFERENTIATION IN ESOPHAGEAL ADENOCARCINOMA AND ITS PROGNOSTIC SIGNIFICANCE

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The presence of neuroendocrine (NE) differentiation has been previously reported in both morphological subtypes, (intestinal and diffuse), of esophageal adenocarcinoma, (EAC). This is more commonly seen in the post-treatment setting and is thought to confer a more aggressive phenotype. However, the molecular underpinning and therapeutic implications of NE differentiation within EAC is poorly understood. Herein, the goal is to understand the molecular mechanisms, evolution and the prognostic significance of NE development in EAC tumours.

Methods: We interrogated a previously published transcriptome dataset with matched H&E slides, TCGA EAC (N = 86). Moreover, we have begun reviewing H&E slides from EAC patients from UHN (N = 50). We created a NE gene expression signature (N = 25 genes) from the literature as an initial proof of concept. We quantified the presence of a NET-like/organoid morphology in the matched H&E slides and correlated it with the average z-score of the NE gene signature calculated from the matched transcriptome data.

Results: NE differentiation was present in 27/86 cases with a mean of 21.01% +/− 20.9 within the tumour area. We compared the expression of our NE gene signature with the proportion of NE morphology and observed a moderate correlation between morphology with the gene expression ($R^2 = 0.546$, $P < 0.001$ ordinary least squares regression), providing validation that the organoid/NET-like morphological pattern correlates with NE differentiation. Furthermore, we have validated the presence of NE morphology in a subset of the UHN samples using electron microscopy and immunohistochemistry (chromogranin and synaptophysin).

Conclusion: This is a first of a kind study to profile a specific morphology with a transcriptional signature within EAC across a large cohort of patient samples. Correlation of NE-features with clinical outcome together with treatment resistant implications is currently underway.

831 VIDEO PRESENTATION LAPAROSCOPIC PARA-CONDUIT HERNIA REPAIR AFTER MINIMALLY INVASIVE ESOPHAGECTOMY

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The para-conduit hernia is a rare occurrence post minimally invasive esophagectomy. We present a case of asymptomatic para-conduit hernia diagnosed via surveillance CT scan and repaired successfully via a laparoscopic approach.

Methods: N/A.

Results: N/A.

Conclusion: N/A.

Video: https://drive.google.com/file/d/1v6ePGYbLe6BtI6l6B0nOaihLtXv6Mk-S/view?usp=sharing.

270 LYMPHADENECTOMY ALONG BILATERAL RECURRENT LARYNGEAL NERVE UNDER SINGLE-PORT INFLATABLE MEDIASTINOSCOPY THROUGH LEFT NECK APPROACH

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Mediastinal lymphadenectomy is a crucial part of minimally invasive esophagectomy, and requires transthoracic operation, which is a crucial