with ablation of LGD when detected is cost-effective in 100% of the simulations. Several studies in recent years have shown similar results. Thus ablation of LGD in Barrett’s oesophagus requires serious consideration, especially for high-risk individuals.

490. CORRELATION BETWEEN HISTOLOGICAL AND MOLECULAR ALTERATIONS WITH POOR SURVIVAL IN ESOPHAGEAL ADENOCARCINOMA

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The incidence of esophageal adenocarcinoma (EAC) has constantly risen in western countries over the past decades, often diagnosed at advanced stage and with a five-year survival around 20%.[1] In a previous study on EAC cases submitted to surgery (without neoadjuvant treatment) an algorithm (EACGSE classification)2 based on morphologic distinctions provided a significant prognostic impact. We aimed to evaluate the molecular basis underlying these differences, to improve patient management.

The EAC cohort classified according to EACGSE2 was included in the study. Genomic DNA was available from formalin fixed paraffin embedded surgical specimens for 207 cases. The cases were sequenced for 26 cancer-related genes (panel #26722257, IDT) with high coverage on NextSeq500 (Illumina). Data analysis was performed using a dedicated pipeline3. 245 cases were analyzed for SMAD4 immunostaining (IHC). Loss of SMAD4 immunostaining was reported as % of negative tumor cells (at least 35% of neoplastic cells).

TP53 was the most frequently altered gene (134/207 cases with at least one mutation). The presence of TP53 missense variants was associated to a poor cancer-specific survival (CSS) in the high-risk cases (gastricudson poorly differentiated, mucinous invasive, diffuse anaplastic, mixed) according to EACGSE2 (P=0.008). A significant correlation was observed for TP53 truncative variants and loss of SMAD4 staining (P=0.008). Actually, SMAD4 loss was observed in 85/245 (35%) of all EAC cases analyzed via immunostaining. SMAD4 loss correlated with poor CSS (P=0.007) and disease-free survival (P=0.002) in EACGSE high-risk cases.

TP53 missense mutations correlated to poor outcomes (CSS) in high-risk cases, TP53 truncative mutations were associated to SMAD4 loss. SMAD4 loss itself resulted a frequent event in EAC and correlated with lower CCS and disease-free survival in high-risk cases. Therefore, we were able to correlate EAC histological classification, clinical outcomes and molecular phenotypes. Validation in independent samples is warranted to corroborate these findings.

References
3. Isidori et al. CTG 202111:e00202.

491. GIANT GASTROINTESTINAL STROMAL TUMOR OF THE ESOPHAGUS: REPORT OF TWO CASES

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Gastrointestinal stromal tumor (GIST) accounts for 1-3% of all gastrointestinal tumors. Most of GIST occurs in the stomach and small intestine, but GIST from the esophagus is relatively rare at about 2-5%. Surgical resection is the treatment of choice, but no routine procedure has been established.

We report two cases of esophageal GIST that underwent surgical resection.

[Case 1]

A 75-year-old woman. She was diagnosed with an 11 cm-sized submucosal tumor was found in the esophagus by upper gastrointestinal endoscopy. Histopathological examination showed that the tumor was GIST. The patient’s postoperative course was uneventful and the patient was discharged home in good condition on the 22nd postoperative day.

[Case 2]

A 58-year-old man. He was diagnosed a 9 cm-sized elevated lesion in the by CECT. The tumor suspected esophageal cancer sarcoma, we underwent esophagectomy. Finally, histopathological examination revealed that the tumor was GIST. His postoperative course was uneventful and he was discharged on the 19th postoperative day.

[Case 1 result]

Postoperative adjuvant chemotherapy with imatinib was failed, but the follow-up period continued without recurrence.

[Case2 result]

Postoperative adjuvant chemotherapy with imatinib was introduced. Contrast-enhanced CT 6 months after surgery revealed multiple liver metastases. 2nd line chemotherapy with sunitinib is still ongoing.

[Discussion]

Surgical treatment is the first choice for esophageal GIST, but no standard surgical procedure has been established. In the past, short-term oncological outcomes to esophageal cancer was often performed, but thoracoscopic local resection may be selected in recent years. Even in the case of giant esophageal GIST as like this two cases, if the general condition is stable and preoperative treatment is possible, it is possible to choose to perform preoperative neoadjuvant chemotherapy.

495. UNIPORTAL VATS MECKEOWN ESOPHAGECTOMY: 4-YEAR EXPERIENCE FROM A TERTIARY CARE CENTER

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A multidisciplinary approach is a cornerstone for the management of the carcinoma esophagus. Minimally Invasive Surgery (Total or hybrid) is essential for better postoperative outcomes. VATS assisted McKeown MIE is a well-established procedure. With the introduction of the uniportal VATS technique in lung surgeries, there is an increasing interest to replicate this in MIE too. Here we appraise our initial experience with the uniportal VATS (uVATS) MIE for the locally advanced squamous cell esophageal cancer.

This is a retrospective observational study. The cohort of carcinoma esophagus patients who underwent surgery from January 2018 to February 2022 in the department of surgical oncology was studied. Demographic data, clinical, treatment details, postoperative complications and short term oncological outcomes of patients who underwent the uVATS technique in semi-prone position were analyzed.

Total 32 (49.2%) patients underwent uVATS McKeown esophagectomy. The majority of the patients had SCC (63%). All patients received NACT+/- RT. Each underwent extended mediastinal lymphadenectomy except two patients who had additional cervical lymphadenectomy. The mean thoracic phase time was 112 +/- 25 min & blood loss was 115 +/- 20 ml. The median thoracic nodes dissected was 15 (8-36), postoperative pain score was 4 and hospitalization duration was 9 (8-12) days. Two patients had pneumonia and 2 had other complications. There was no 30-day mortality. After the median follow-up of 26.8 months, the OS & DFS was 93% & 86% respectively.

uVATS in a semi-prone position with fourth intercostals space access incision is a feasible and safe technique. It has all the advantages of MIE techniques over open surgery. The coxal operating axis provides the best manipulation zone for operating without the need for CO2. Conversion to thoracotomy is quick if required. We believe it has a short learning curve than multiport VATS.

More studies are needed to generate data for the uVATS technique in future.
after surgery with docetaxel, cisplatin, and 5-FU neoadjuvant chemotherapy (NAC-DCF).

The subjects were esophageal cancer recurrent patients after NAC-DCF, except for the cases performed only best supportive care, in Okayama University Hospital between January 2014 and October 2021, excepted the cases performed only best supportive care. We assessed their background characteristics, treatment details, immune-related adverse events (irAE), and overall survival (OS).

17 patients received therapies, including Nivolumab (Nivo). 41 patients received other chemotherapies (Control). There was no significant difference in gender (Nivo: male 88%, Control male 80%), age (Nivo: 68.1±8.9, Control: 61.1±3.7 months), and the period from surgery to recurrence (Nivo: 5.7±3.8 months, Control: 6.1±3.7 months). The Median overall survivals were 27±7.0 months and 18±2.5 months (P=0.055, Log Rank test). The major irAEs were reported in 4 cases (ACTH deficiency: 1 event, enterocolitis: 1 event, liver dysfunction: 2 events).

Nivolumab improved the outcomes of recurrent patients after NAC-DCF with a bit of tendency.

497. INDOCYANINE GREEN FLUORESCENCE ANGIOGRAPHY VERSUS VISUAL ASSESSMENT FOR GASTRIC CONDUIT PERFUSION ASSESSMENT IN PATIENTS UNDERGOING ESOPHAGOTOMY: A RANDOMIZED CONTROLLED STUDY

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Esophago-gastric anastomosis leakage is one of most feared complication after esophagotomy accountable for major postoperative morbidity and mortality. The high rate of anastomotic complications is due the tenuous perfusion of gastric conduit. This prospective randomized control trial compares the efficacy of intraoperative indocyanine green fluorescence angiography (ICG-FA) against visual assessment (VA) in evaluating the perfusion of gastric conduit and proximal esophageal stump in patients undergoing esophagotomy for cancer.

Fifty eight consecutive patients who underwent esophagotomy for carcinoma middle, lower third esophagus or gastro-esophageal junction from January 2020 till September 2021 were enrolled. Amongst them 30 patients were randomized to non ICG arm where the perfusion of gastric conduit and esophageal stump was evaluated by visual assessment (VA) based on inspection of the color, the palpation of warmth, pulse, and bleeding from the edges and 28 patients to ICG arm underwent initial appraisal of gastric conduit and esophageal stump perfusion was done by visual assessment followed by ICG-FA. Correlation coefficient was evaluated by Pearson’s R coefficient.

Both the groups were similar in demographic parameters. The anastomotic leak was significantly lower in ICG arm [4% vs 8/28 (27%) p 0.0261]. Most of the leaks were minor type 1. When visual assessment was compared with ICG assessment, 80% of the vascularized conduits on VA showed good perfusion on ICG-FA. 39% of gastric conduit which seemed to be dusky on VA had good vascularity on ICG-FA. Kappa value was 0.256 p 0.097 i.e., a fair agreement between ICG and visual assessment in evaluating vascularity of gastric conduit was fair.

VA of the gastric conduit perfusion can underrate perfusion and hence can jeopardize removal of the devitalized part. ICG fluorescence imaging is an accurate and promising means to ascertain the vascularity of gastric conduit during an esophagotomy. But its utility needs to be validated in larger randomized trials.

498. MINIMALLY INVASIVE ESOPHAGOTOMY FOR PATIENTS WITH ESOPHAGEAL CANCER AND A HISTORY OF LIVER TRANSPLANTATION: A LITERATURE REVIEW AND CASE SERIES

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The survival after liver transplantation is continually improving. With evidence of an increased risk of de-novo malignancies after liver transplantation, it is urgent to improve the treatment of an esophageal cancer in patients with a history of liver transplantation. With this study we wanted to show a case series of totally minimally invasive Esophagotomy for patients with a history of liver transplantation, as well as an literature review.

We performed a systematic literature review according to the PRISMA guidance to identify the documented cases of an operative procedure in patients with a history of liver transplantation. Baseline characteristics, tumor stages

<table>
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<th>Non ICG arm (n 30)</th>
<th>ICG arm (n 28)</th>
<th>P value</th>
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<td>H0V</td>
<td>4(13%)</td>
<td>2(8%)</td>
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<td>Re-explorations</td>
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