638. SAFETY AND EFFICACY OF REPEATED TALAPORFIN SODIUM PHOTODYNAMIC THERAPY (PDT) FOR ESOPHAGEAL CANCER

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While Talaporfin sodium photodynamic therapy (PDT) is an effective and safe salvage treatment for local failure after chemoradiotherapy for esophageal cancer, some case developed local failure. For such case, repeated PDT could be indicated. However, safety and efficacy of repeated PDT as a salvage treatment for esophageal cancer has not been elucidated.

We retrospectively reviewed 60 patients with esophageal cancer who were treated with salvage PDT at Kyoto University Hospital between October 2015 and August 2021. Among 60 patients, repeated PDT after the first PDT was indicated for 21 lesions in 16 patients (26.7%), of which eight lesions were residual tumor, four were local recurrence after complete response (CR) after the first PDT at the primary site, and nine were metachronous lesions. The total session of repeated PDT was 33; 20 were for primary sites and 13 were for metachronous sites. Among them, seven patients (43.8%) achieved local (L) -CR and 13 lesions (61.9%) achieved lesion L-CR. By session, 14 sessions (42.4%) achieved L-CR. There were no severe adverse events except for one patient of perforation.

Repeated PDT could be an effective and safe treatment option for local failure after salvage PDT for esophageal cancer.

640. ESOPHAGECTOMY FOR ESOPHAGEAL AND GASTROESOPHAGEAL JUNCTION ADENOCARCINOMA IN RYGB PATIENTS: A LITERATURE REVIEW ON OPERATIVE TECHNIQUES, SAFETY AND ONCOLOGIC OUTCOME

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Roux-en-Y gastric bypass (RYGB) surgery changes the anatomy of the gastrointestinal tract, and thus renders the surgical management of esophageal and gastroesophageal junction adenocarcinoma cases technically confusing. No consensus exists regarding the optimal surgical technique in terms of safety and oncologic outcomes in these cases. The aim of this study is to compile and analyze the available operative/technical data in the literature on surgical management of esophageal and gastroesophageal junction adenocarcinoma in RYGB patients. Keywords used were esophageal adenocarcinoma, esophageagastic junction adenocarcinoma, gastric bypass, bariatric surgery, esophagectomy, Ivor Lewis esophagectomy, transthiatal esophagectomy, and thoracoabdominal esophagectomy. All abstracts retrieved were screened, and for each one deemed relevant, the full text was obtained. Finally, 11 articles containing 17 cases were studied and analyzed. Extracted data included: Esophagectomy type, incision type, gastric pouch management, conduit used, Roux limb management, and most importantly complications and oncologic outcome.

Esophagectomy was Ivor Lewis, transthiatal, and thoracoabdominal in 58.82%, 23.53% and 17.65% respectively. Esophagectomy was open in 46.67%, and minimally invasive in 53.33%. Gastric pouch was reconnected to the excluded stomach in 14.29%, while it was resected in 85.71%. Gastric, colonic and jejunal conduits were used in 87.5%, 6.25% and 6.25% respectively. In 63.64%, the Roux limb (RL) was connected to the abdominal wall and a feeding jejunostomy was placed. In the remaining 36.36%, the RL was either totally resected, or its proximal end was anastomosed to the distal end of the biliopancreatic limb. No complications were reported.

No differences in oncologic outcome or safety were observed between open versus minimally invasive esophagectomy. Minimally invasive esophagectomy is safe and technically feasible with appropriate oncologic outcomes for esophageal and gastroesophageal junction adenocarcinoma patients with previous gastric bypass. Therefore open esophagectomy is not necessary. Post RYGB Esophageal and gastroesophageal junction adenocarcinoma might be underreported, and the number of cases will undoubtedly continue to increase in the coming years.

641. ALPORT SYNDROME WITH ESOPHAGEAL LEIOMYOMA TREATED WITH CONSERVATIVE DISTAL ROBOTIC MYOTOMY: AVOIDING ESOPHAGECTOMY?


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Alport Syndrome manifests as dysmorphemic inheritance associated with or not with nephritic syndrome, renal failure and visual and auditory impairment, in addition to family history. Leiomyoma is the most common benign neoplasm of the esophagus, but it is rare in childhood, and controversies persist as to the best option for its surgical treatment. We report the case of an 8-year-old female patient diagnosed with Alport syndrome and association with esophageal leiomyoma.

An 8-year-old female had 3 episodes of pneumonia related to bronchoaspiration. During childhood, she presented pictures of retrosternal pain related to dysphagia, which had worsened in intensity in the last 2 years. She had a history of achalasia, she underwent an Endoscopic Poem Myotomy. During the procedure, a mass was observed in the distal esophagus and a biopsy showed that it was an esophageal leiomyoma. Given the close association of this tumor with Alport Syndrome, biopsy confirmed the diagnosis. She was then submitted to robotic surgery for possible esophagectomy, however, only partial resection of the Leiomyoma was performed avoiding esophagectomy.

Due to young age and the morbidity of esophagectomy, only partial resection of the Leiomyma was performed, with significant improvement in esophageal emptying for liquids and solids in the postoperative period and hospital discharge after 5 days. Considering leimomymatosis a benign disease, partial resection was permitted since the histological aspects such as high rates of Ki67% and cellular morphological features were not found.

The case in question presented a diagnosis due to the severe manifestations that were provided by the esophageal leiomyoma in a patient with atypical epidemiological characteristics, such as age group and sex. The conservative surgical strategy was chosen due to the patient’s age and the surgical result was satisfactory, being suggested in similar cases.

642. RESULTS COMPARING SAFE (SUPERCHARGED CERVICAL ANASTOMOSIS FOR ESOPHAGECTOMY AND GASTRIC PULL-UP) AND NON-SAFE PROCEDURE: PROPENSED MATCHED SCORE STUDY

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Esophagectomy is a high-risk surgical procedure. Anastomatic leakage is the most feared complication and is likely related to diminished anastomotic perfusion. “Supercharged” microvascular anastomosis has been performed in recent 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.
This retrospective cohort study evaluated patients who underwent esophagectomy with gastric reconstruction and cervical anastomosis for locally advanced esophageal carcinoma with or without SAFE procedure between 2009-2021. Demographic features were assessed such as gender, age, histological type, staging; complications were evaluated (anastomotic leakage, clinical and surgical complications); mortality and overall survival; all those setting was compared between groups after propensity matched score system (PMS). Univariable and multivariable analysis were done. The study enrolled 421 patients, 71 with SAFE procedure and 350 without SAFE procedure. After PMS (1:1), 65 patients remained in each group which included 100 (77.0%) men, with a mean age of 65.3 years. Univariable analysis showed SAFE procedure less occurrence of leakage HR 3.05 (1.32-5.34), less clinical complications HR 3.24 (1.56-6.57). In multivariable analysis, SAFE procedure was related to less occurrence of leakage HR 3.1 (2.43-4.32). Comparing both overall survival (3 yrs), SAFE group had better results (SAFE 52.3%; non SAFE 31.2%).

The supercharged cervical anastomosis for esophagectomy procedure may be related to low occurrence of anastomotic leakage and improve overall survival.

643. PRACTICAL IMAGING REVIEW OF EXPECTED FINDINGS AND POSSIBLE COMPLICATIONS RELATED TO MULTIMODAL TREATMENT OF ESOPHAGEAL CANCER
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Esophageal cancer has been a major health issue, representing the eighth most common cancer worldwide. In the last decades, esophageal cancer treatment has evolved rapidly and a multimodality approach has been increasingly used. Main treatment options for locally advanced tumors include surgery resection, neoadjuvant or definitive chemoradiotherapy and palliative endoscopic dilation/stenting. In that context, radiology plays an important role in the early identification and management of treatment related complications.

Retrospective analysis of the radiological exams of esophageal cancer patients in the ICESP (Cancer Institute of Sao Paulo) followed by selection of several cases (more than 300 cases) illustrating the expected findings and the main complications related to each treatment modality (surgical, endoscopic and radiotherapy-related).

Five main different complications were selected and the radiological findings were classified using the HARMS mnemonic: Hiatal hernia; Anastomotic fistula, Radiation-induced injury, Mediastinal and pleural-pulmonary abscess and stenting-related injuries. For each classification, several images were selected using the different methods of esophageal imaging - mainly upper gastrointestinal series and computed tomography.

After categorization it is possible to recognize and familiarize with post-treatment complications using the “HARMS” mnemonic. Therefore, we present a review for the radiologists describing what is important to report as well as a compilation of possible image findings that oncologists, surgeons and endoscopists must be aware of.

644. PREDICTORS OF ADVERSE CLINICAL EVENTS FOR CAUSTIC INGESTION IN ADULTS: A 20-YEAR CROSS-SECTIONAL STUDY
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Caustic ingestion is an uncommon but potentially life-threatening condition. It can lead to various complications. There are limited epidemiological studies on caustic ingestion, especially in the Asian population. This study aims to review the clinical characteristics of corrosive ingestion in Hong Kong adults and look for predictors of adverse clinical events.

Patients admitted for caustic ingestion at a tertiary referral center in Hong Kong between January 2001 and December 2021 were studied. Patients’ demographic and clinical characteristics, types of caustic substances ingested, Zargar endoscopic grading and clinical outcomes were obtained. Adverse clinical events are defined as the presence of any of the following outcomes: intensive-care-unit (ICU) admission, gastrointestinal (GI) complications (including stricture, ischemia, gangrene, perforation and fistulation), need for surgical or endoscopic intervention, in-hospital mortality, or length of hospital stay (LOS) more than 14 days. Relationships between patients’ factors and different outcomes were then evaluated.

Among 69 patients, 45 (65.2%) were suicidal intent. Eight (11.6%) patients required emergency surgery (7 gastrectomies, and 1 esophagectomy). The most common GI complication was esophageal stricture (n=12, 17.4%). Eleven patients underwent endoscopic dilatation; 4 required elective esophagectomy. Patients with diabetes mellitus had a higher Zargar grading (OR=4.259, p=0.040). Adverse clinical events were associated with acid ingestion (OR=4.110, p=0.015) and suicidal intent (OR=3.635, p=0.027). Subgroup analysis showed that diabetes (OR=4.062, p=0.040), acid ingestion (OR=4.222, p=0.016) and suicidal intent (OR=15.932, p=0.009) had higher risks for ICU admission. The morbidity and mortality rates were 29.0% and 7.2% respectively.

Caustic ingestion remains an important clinical problem in daily practice, with potential risks of developing severe complications. Suicidal attempt, acid ingestions and history of diabetes are predictors of adverse clinical events.

647. A CASE OF ACUTE GASTRIC TUBE ULCER BLEEDING SAVED BY EMERGENCY SURGERY
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Gastric tube ulcer is recognized as one of the complications after esophageal cancer surgery. When a ulcer bleeds, or penetrates to the pericardial space, or perforates, it often follows a fatal course due to its anatomical position. We report a case of persistent hemorrhage and the bleeding site was not found by endoscopy. Emergency surgery was performed and we was able to save the patient's life.

| Table 1. (Univariate analysis of predictors for adverse clinical events). |
|-----------------|-----------------|-----------------|-----------------|-----------------|
| Factors         | Without adverse clinical events (n=42) | With adverse clinical events (n=27) | Odds Ratio (95% CI) | P value |
| Suicidal attempt| 23 (54.8%)       | 22 (81.5%)      | 3.635 (1.156-11.427) | 0.027  |
| Acid ingestion  | 7 (16.7%)        | 11 (40.4%)      | 4.110 (1.310-12.889) | 0.015  |
| DM              | 4 (9.5%)         | 7 (25.9%)       | 3.325 (0.868-12.730) | 0.079  |
| Female          | 24 (57.1%)       | 17 (63.0%)      | 0.581 (0.203-1.662)  | 0.311  |
| Age (mean)      | 49.1             | 59.1            | 1.022 (0.998-1.045)  | 0.068  |