

657 ROUTINE ESOPHAGRAMS FOLLOWING HIATUS HERNIA REPAIR MINIMISES REOPERATIVE MORBIDITY: A MULTICENTER COMPARATIVE COHORT STUDY

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Hiatus hernia repairs are common. Early complications such as re-herniation, esophageal obstruction and perforation, although infrequent, incur significant morbidity. Here, we determine whether routine postoperative esophagrams following hiatus hernia repair may expedite the surgical management of these complications, reduce reoperative morbidity, and improve functional outcomes.

Methods: Analysis of a prospectively-maintained database of 1829 hiatus hernia repairs undertaken in 14 hospitals from 1 January 2000 to 30 September 2020. 1571 (85.9%) patients underwent a postoperative esophagram which was reviewed. An early (<14 days) reoperation was performed in 44 (2.4%) patients.

Results: Compared to those without an esophagram, patients who received one prior to reoperation (n=37) had a shorter time to diagnosis (2.4 vs. 3.9 days, p=0.041) and treatment (2.4 vs. 4.3 days, p=0.037) of their complications. This was associated with decreased open surgery (10.8% vs. 42.9%, p=0.034), gastric resection (0.0% vs. 28.6%, p=0.022), postoperative morbidity (13.5% vs. 85.7%, p<0.001), ICU admission (16.2% vs. 85.7%, p<0.001), and length-of-stay (7.3 vs. 18.3 days, p=0.009). Furthermore, patients who underwent early reoperations for asymptomatic re-herniation had less complications and superior functional outcomes at one-year follow-up than those who needed surgery for symptomatic recurrences later on.

Conclusion: Postoperative esophagrams decreases the morbidity associated with early and late reoperations following hiatus hernia repair, and should be considered for routine use.

658 BETTER SURVIVAL IN FEMALES THAN MALES AFTER RESECTION OF OESOPHAGEAL OR GASTROESOPHAGEAL JUNCTION CANCER: A COHORT STUDY IN SWEDEN

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Accumulating evidence points to a better survival in female patients after a curative oesophageal cancer surgery. However, there is a need for more well-designed and sufficiently powered studies for limitations in previous studies. Better understanding of sex differences in the postoperative survival may be helpful for a sex-specific treatment.

Methods: This is a population-based cohort study including all patients in Sweden with oesophageal cancer that underwent a curative surgical treatment between 2006 and 2017. Sex difference in postoperative survival was explored with excess mortality rate ratio (EMRR) and absolute difference of excess mortality rate along the whole follow-up time, using flexible parametric model. Age at the time of surgery, Charlson comorbidity index, ASA score, tumor stage, post-operative complications, marital status, education level and hospital volume were considered as covariates in the analysis model. Stratification analysis by clinical stages, perioperative neoadjuvant treatment and post-operative complications was also performed.

Results: In all, there were 1301 patients resected for oesophageal adenocarcinoma and 305 patients for oesophageal squamous cell carcinoma. For both oesophageal adenocarcinoma and oesophageal squamous cell carcinoma, female patients had a lower excess mortality rate than males (adjusted EMRR: 0.77, 95% CI: 0.58–1.01, P=0.059; 0.53, 95% CI: 0.33–0.85, P=0.009, respectively). This sex difference was particularly strong shortly after surgery then gradually decreased over the ensuing years (Figure) and was more profound in the early clinical stages, and in patients receiving neoadjuvant treatment and without post-operative complications.

Conclusion: Female patients seem to have a better survival shortly after esophagectomy for patients with oesophageal adenocarcinoma and oesophageal squamous cell carcinoma, and the sex difference thereafter weakened. Our results may imply a different response to oesophageal cancer surgery between the sexes, and associated pre- and post-operative treatment, thus a sex-specific strategy may be considered in further work.

659 AN SINGLE-ARM OPEN-LABEL PHASE II STUDY OF CAMRELIZUMAB PLUS APATINIB AS SECOND-LINE TREATMENT FOR ADVANCED ESOPHAGEAL SQUAMOUS CELL CARCINOMA

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Esophageal squamous cell carcinoma (ESCC) as a common malignancy is prevalent in East Asia and in eastern and southern Africa. Although pembrolizumab, nivolumab and camrelizumab are respectively recommended as second-line treatment for advanced ESCC due to improved overall survival (OS), objective response rate (ORR) was modest. New effective treatments are needed. Hence, the study of camrelizumab plus apatinib (VEGFR2 inhibitor) as second-line treatment for advanced ESCC was performed.

