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KARL STORZ: EAES AWARD SESSION

O001—COLORECTAL—Malignant

RANDOMISED CLINICAL TRIAL OF SELECTIVE DECONTAMINATION OF THE DIGESTIVE TRACT IN ELECTIVE COLORECTAL CANCER SURGERY (THE SELECT TRIAL)

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Aims: Infectious complications and anastomotic leakage affect approximately 30% of patients after colorectal cancer surgery. The aim of this multicenter randomized trial was to investigate whether selective decontamination of the digestive tract (SDD) reduces these complications of elective colorectal cancer surgery.
Methods: The effectiveness of SDD was evaluated in a multicenter, open-label, randomised clinical trial in 6 centres in The Netherlands. Patients with colorectal cancer scheduled for elective curative surgery with a primary anastomosis were eligible.
Oral colistin, tobramycin, and amphotericin B were administered to the SDD group to decontaminate the digestive tract. Both groups received intravenous cefazoline and metronidazole for peri-operative prophylaxis. Mechanical bowel preparation was given for left sided colectomies, sigmoid and anterior resections. Anastomotic leakage was the primary outcome while infectious complications and mortality were secondary outcomes. This trial was registered with ClinicalTrials.gov number NCT01740947.
Results: In total, 228 patients were randomized to the SDD group and 227 to the control group until the trial was stopped after interim-analysis demonstrated that superiority was no longer attainable. Effective SDD was confirmed by interspace DNA profiling analysis of rectal swabs. Anastomotic leakage was observed in 14 patients (6.1%) in the SDD group and in 22 patients (9.6%) in the control group (odds ratio) [OR 0.61 (0.30–1.22)]. In the SDD group, fewer patients had one or more infectious complications than in the control group (14.9% (n = 34) versus 26.9% (n = 61), [OR 0.48 (0.30–0.76)]. On multivariable analysis, SDD reduced infectious complications OR 0.472 (0.294–0.755).
Conclusion: SDD reduces infectious complications after colorectal cancer resection but did not significantly reduce anastomotic leakage in this trial.

O002—COLORECTAL—Malignant

INTRACORPOREAL VERSUS EXTRACORPOREAL ANASTOMOSIS DURING LAPAROSCOPIC RIGHT HEMICOLECTOMY. Results FROM RANDOMIZED CONTROLLED TRIAL

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Aims: There are several studies that demonstrate the superiority of the intracorporeal (IA) vs extracorporeal (EA) anastomosis. But most reports are non-randomized, retrospective, and carried out in heterogeneous groups of patients, which might induce patient selection bias.
Methods: We present the first randomized controlled trial, designed to evaluate the two interventions with thorough measurements of the postoperative variables and complications to improve the evaluation of the surgical technique. The primary endpoint is to compare the length of hospital stay. The secondary endpoints were the comparison of intraoperative technical and postoperative clinical events. We included patients aged = 18 years old referred only for right colon cancer and requiring an elective laparoscopic right hemicolectomy.
Results: 140 patients were randomized. The characteristics of the patients were equivalent between groups. Surgical time was longer in IA vs EA (149 ± 27 vs 123 ± 36 min). The length of resected colon was longer in IA vs EA (25.2 ± 5.7 vs 22.6 ± 7.8 cm) with similar number of lymph nodes (19.6 ± 6 vs 19.1 ± 7).The length of wound was shorter in IA (6.7 ± 1.2 vs 8.7 ± 1.4 cm). The postoperative analgesia was lower in IA (39 ± 24.3 vs. 53 vs. 26), and the pain score was lower according to the EVA scale in group IA (1.8 ± 1.8 vs 2.9 ± 2.2). The recovery of digestive functionality was earlier in IA (2.3 vs 3.3 days) with lower incidence of paralytic ileus (13% vs 30%). Postoperative complications according to Clavien Dindo classification were lower in IA: grade I (10% vs 27%); grade II (18% vs 35%); grade III (1.4% vs. 7.2%).
Incidence of anastomotic leak was lower in IA (4.3% vs. 7.14%) with similar wound infection rates (4.3% vs. 4.2%). Hospital stay was similar (5.65 ± 3.7 vs 6.58 ± 4.6 days).
Conclusions: IA in the laparoscopic right hemicolectomy is a surgical option that require a longer surgical time, but which provides a surgical specimen comparable to the extracorporeal anastomosis. IA is associated with lower perception of pain and analgesic requirements. IA is superior in terms of the earliest digestive functional recovery, with a lower morbidity. All these clinical advantages would lead to an earlier recovery.

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P495—UPPER GI—Benign Esophageal disorders

PREVENTION OF RECURRENT BLEEDING IN PATIENTS WITH PORTAL HYPERTENSION

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The aim of the study was to evaluate the effectiveness of the use of embolization of the splenic artery in order to prevent portal bleeding.

Methods: The study included 96 patients, who had esophageal varices bleeding, which developed as a result of decompensated cirrhosis of the liver of various etiologies of classes B and C according to Child-Pugh.

Patients were divided into 2 groups. The main group included 71 (73.95%) patients who underwent endoscopic ligating of bleeding varix and in order to prevent recurrence of bleeding—embolization of the splenic artery with Gianturco coils. The comparison group consisted of 25 (26.05%) patients who received only drug therapy.

To assess the effectiveness of the treatment, the patient's condition was monitored for 6 months.

Results: The average age of patients in the comparison group was 56.8 ± 4.4 years. Using only drug therapy, we stopped bleeding in 54 (76.1%) patients. In all cases, at the end of treatment, we received an improvement in clinical and laboratory parameters. 17 (23.9%) patients died. The duration of treatment was 10.1 ± 2.4 days.

The average age of patients in main group was 55.2 ± 5.6 years. Performing endoscopic ligation of bleeding varices, we stopped bleeding in 23 (92.0%) patients. In all cases, at the end of treatment, we received an improvement in clinical and laboratory parameters. 2 (8.0%) patients died. The duration of treatment was 6.5 ± 2.7 days.

A statistical analysis of mortality and duration of treatment revealed a significant difference ($p < 0.01$) between the groups in both indicators.

After splenic artery embolization in all cases managed to achieve a reduction in blood flow of 60-80%.

After 6 months among 54 patients in the comparison group, bleeding relapse occurred in 12 (22.2%) cases. In the main group, this indicator was 8.7% (2 patients). The indicator in the main group was significantly ($p < 0.01$) different from the same indicator in the comparison group.

Conclusion: Performing embolization of the splenic artery in patients after endoscopic hemostasis of variceal bleeding allows to reduce the pressure in the portal system, which in turn leads to a decrease in the frequency of bleeding recurrences.

P496—UPPER GI—Benign Esophageal disorders

THORACOSCOPIC ESOPHAGECTOMY FOR AORTOESOPHAGEAL FISTULA

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Background: Aortoesophageal fistula (AEF) is an uncommon but one of highly fatal conditions. There are surgical, endoscopic and interventional radiological treatment options, however, definitive treatment is the surgical intervention. Video-assisted thoracoscopic surgery (VATS) has been gradually accepted as a substitution for thoracotomy to reduce the invasiveness of the surgery as radical surgery for esophageal cancer. We aimed to evaluate a feasibility of VATS-esophagectomy (VATS-E) for AEF in this study.

Material and methods: Between 2009 and 2017, we retrospectively reviewed clinical charts of six patients who underwent VATS-E for AEF.

Results: The median thoracoscopic time was 146 min (range, 114-178 min). None of the patients were converted to open surgery. Thoracic endovascular aortic repair (TEVAR) was performed five patients (83.3%). Four patients underwent aortic replacement with artificial graft. Esophageal reconstruction was possible in three patients.

Conclusion: TEVAR and VATS-E are feasible for the treatment of AFE. Further accumulation of cases is necessary to establish safe and secure surgical strategy for AEF.

P498—UPPER GI—Benign Esophageal disorders

BASIC SURGICAL STEPS FOR LAPAROSCOPIC RE-DO SURGERY FOR RECURRENT ACHALASIA

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Introduction: Achalasia is the most common motility disorder of the esophagus. Heller's cardiomyotomy associated with a antireflux technique is the treatment of choice in patients with this disease; however, a small group of patients could present a recurrence of the symptoms being necesary a new surgery, what is an important challenge for most of the surgeons. We report the case of recurrence after a laparoscopic miotomy and Dor fundoplication as a paradigm for the appropiate management in this kind of patients.

Methods: A 63 years old female, who underwent a previous miotomy and a Dor fundoplication in 2011 due to an Achalasia.Six years after surgery, the patient showed epigastric pain and dysphagia. The study of the patient was performed with: barium swalow, pHmetry, manometry, CT-scan and MRI showing a recurrence of her disease.The patient was transfered to our center where she underwent a new surgery.The key points of the new surgery includes the next steps: Dissection of the previous adhesions, Dissection of the Dor's partial fundoplication, avoid dissection of the anterior esophageal wall at the leve lof the hiatus (the area of previous myotomy) in order to avoid perforation of the esophagus, Lateral and posterior dissection of the distal esophagus, lateral myotomy at the rigth wall of the esophagus and a Toupet's Funduplicatury. All of thisis procedures are done under intraoperative endoscopy in order to confirm a Good passage to the estmach and to identify a perforationic supervision.

Results: Following theseis steps several patients have been operated in our center with excellent results. In all of these cases, including the patiente presented previously, the symptoms have dissapeared.

Conclusions: Achalasia is a rare motility disorder of the esophagus, being recurrences an important challenge for surgeons. A great proper therapeutic strategy using the different diagnostic exams and the supervison by a group of experts in this kind of entity are the basis in order to obtain good results in these situations.

P499—UPPER GI—Benign Esophageal disorders

LAPAROSCOPIC RE-DO FUNDOPLICATION FOR PROGRESSIVE DYSPHAGIA—CONVERSION FROM NISSEN TO TOUPET

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Aims: Re-do fundoplication is usually performed for recurrent reflux symptoms due to wrap failure or recurrent hiatus hernia. Conversely, persistent dysphagia may occur early due to tight wrap/crural repair which should be avoided by good surgical technique. A small group of patients however may suffer progressive dysphagia due to weakening motility (especially in older patients), fibrosis of the wrap or a combination of the two. This video demonstrates the successful treatment of this problem with a laparoscopic conversion from Nissen to posterior Toupet fundoplication.

Methods: A 72 year old man underwent an uncomplicated laparoscopic Nissen fundoplication in 2015 with complete resolution of reflux symptoms. He re-presented 2 years later, still free of reflux but suffering progressive dysphagia and troublesome regurgitation. Investigations demonstrated intact wrap and no mechanical obstruction, but confirmed low-amplitude peristalsis. A trial endoscopic dilatation improved symptoms for 11 days before recurrence, suggesting likely wrap fibrosis (which would reduce elasticity and impede passage of food bolus), justifying consideration for a conversion from Nissen to Toupet.

Results: This video demonstrates the expected adhesions between fundoplication and inferior surface of left lobe liver, mobilisation and division of the Nissen fundoplication, and reconstitution of a posterior Toupet fundoplication. The patient made a good recovery and was discharged the following day. Three- and six-month follow-up confirmed complete resolution of symptoms with no recurrence of reflux.

Conclusion: Laparoscopic re-do surgery for late-onset progressive dysphagia is a safe and viable option. Patients must be thoroughly investigated and carefully selected for an appropriately tailored procedure. They should also be advised of the increased risks associated with re-do surgery. The anatomy can be unpredictably distorted by variable adhesions and this operation should therefore only be performed by laparoscopic surgeons experienced in both primary and re-do fundoplication.