Texas ACS – Stronger Together
Video Abstracts

VIDEO SESSION
Poster #186

THE USE OF THE 5MM
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Presenter: Vid Fikfak MD
Houston Methodist Hospital, Houston, tx

BACKGROUND: Thoracoscopic lobectomy has played an important role in resection of benign and malignant lung masses. In patients who had undergone radiation or have bronchiectasis this approach may be relatively contraindicated. To facilitate the minimally invasive approach, new surgical devices have been developed. Here we present our experience with a 5 mm curved tip electrothermal bipolar sealing device in VATS lobectomy.

OBJECTIVE: To determine the effectiveness of a 5 mm curved tip electrothermal bipolar sealing device in complex VATS lobectomy.

METHODS: A 63y/o woman with a right lower lobe adenoCa underwent a video assisted right lower lobectomy during which a 5mm curved tip electrothermal bipolar sealing device was used for dissection.

RESULTS: The shape of the 5mm curved tip electrothermal bipolar device enables to surgeon to safely and effectively dissect the posterior and anterior hilum as well as the pulmonary vessels and bronchus in order to perform a VATS lobectomy even in complex hilums.

CONCLUSION: The use of the 5mm curved tip electrothermal bipolar sealing device significantly facilitates VATS lobectomy.

VIDEO SESSION
Poster #188

THORACOSCOPIC RESECTION OF INTRALOBAR PULMONARY SEQUESTRATION
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Presenter: Karen Dickinson MD
Houston Methodist Hospital, Houston, TX

BACKGROUND: Pulmonary sequestration occurs in approximately 0.1% of births. By definition there is usually no communication between the sequestrated lung and the bronchial tree or pulmonary arteries. There are two types—intralobar and extralobar. Both have systemic arterial supply. They differ in that extralobar sequestrations have systemic venous outflow while intralobar have pulmonary venous outflow. Standard treatment for symptomatic sequestrations is a lobectomy. The majority of sequestrations occur in the left lower lobe, thus necessitating a left lower lobectomy. In the case of extralobar sequestrations, it is sometimes possible to only remove

the affected segment, as it is separated from healthy lung by its own parietal pleura. Traditionally, extralobar sequestrations are more rare, and present earlier in life as cyanosis or respiratory compromise. Intralobar sequestration usually presents in late childhood or early adolescence as recurrently pulmonary infections. Rarely, sequestrations present as hemoptysis.

OBJECTIVE: This case study followed a 29 year old male with ten year history of hemoptysis who presented to clinic with worsening hemoptysis. Previously, he had been experiencing an episode of hemoptysis every 3 months but 1 month prior to presentation he began experiencing daily episodes of bright red hemoptysis. He did not have any pulmonary diagnoses at presentation and had a nine pack year cigarette history. CT scan showed a left lower lobe intralobar pulmonary sequestration with a large anomalous vessel arising from the aorta. Given the symptomatic nature of his left intrapulmonary sequestration, it was advised that he undergo left VATS with left lower lobectomy.

METHODS: Left VATs was performed in the usual fashion. The abberant vessel coming off the aorta was isolated and divided using Endo-GIA tan load. Inferior pulmonary vein was identified and mobilized using ligature and then divided using Endo-GIA gray load. No pulmonary artery was identified going to the left lower lobe; however, three small feeding vessels were identified and ligated using Endo-GIA gray load. The bronchus was ligated with the Endo-GIA purple load. Left lower lobe specimen was placed in EndoCatch bag and sent to pathology.

RESULTS: Patient's pain was well-controlled with oral pain medication and he was discharged home on post-operative day 3. Pathology showed changes consistent with pulmonary intralobar sequestration. Patient had scheduled follow-up with resolution of hemoptysis.

CONCLUSION: The definitive treatment for pulmonary sequestration is surgical resection, usually a left lower lobectomy. In the United States, most lobectomies are still done via a posterolateral thoracotomy. However, VATS left lower lobectomy is a viable option that confers decreased morbidity to the patient, decreased hospital stay, and decreased pain. Thorascopic surgery allows increased visibility and clarity, given the high resolution 30 degree lens, and thus surgeons are better able to identify and isolate the aberrant vessels and inferior pulmonary ligament. Overall, VATS left lower lobectomy is a safe and useful treatment for pulmonary sequestrations.

VIDEO SESSION

Poster #189

LAPAROSCOPIC DUODENOJEJUNOSTOMY FOR SUPERIOR MESENTERIC ARTERY SYNDROME

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Presenter: Richard Peterson MD, MPH, FACS, FASMBS
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BACKGROUND: Superior Mesenteric Artery (SMA) Syndrome is a rare condition caused by compression of the third portion of the duodenum by the superior mesenteric artery. This results in the clinical presentation of nausea, emesis, post-prandial abdominal pain, and weight loss. The incidence of SMA syndrome ranges between 0.013 and 0.3% of the population and its presentation can be acute or chronic.

OBJECTIVE: A 17-year-old girl with the acute onset of nausea and vomiting is presented documenting the laparoscopic duodenojejunostomy for the treatment of SMA syndrome.

METHODS: Technique for laparoscopic duodenojejunostomy for the treatment of SMA syndrome is described within the video.

RESULTS: A 17-year-old girl presented to the emergency room with the acute onset of nausea, emesis and emesis for the last 1-2 days. Prior to that she was in her usual state of health, reporting

an intentional 20 pound weight loss in a 1.5 year period. A CT scan of the abdomen and pelvis revealed an extremely large and dilated stomach with decompression of the bowel distal to the superior mesenteric artery. Her stomach was full with approximately 3.5 liters of fluid and she underwent nasogastric tube decompression. She underwent placement of a percutaneous endoscopic gastrostomy tube and nasojejunal enteral nutrition for two weeks. The patient was taken to the operating room for a laparoscopic duodenojejunostomy. The patient tolerated the procedure well and was discharged home.

CONCLUSION: SMA Syndrome is a rare entity that can be debilitating and affects a small percentage of the population. While there are options, surgical options are often required and laparoscopic duodenojejunostomy can be performed safely and effectively. It is important to remember that because of the natural history of the progression of this syndrome, patients remain at risk for delayed gastric emptying in the immediate postoperative period.

VIDEO SESSION

Poster #190

LINX EROSION TREATED ENDOSCOPICALLY

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BACKGROUND: Gastroesophageal reflux disease (GERD) is the result of a weak lower esophageal sphincter (LES). The Linx Reflux Management System (LINX) consists of a ring of magnetic beads that expands with esophageal distention. The device is produced by Torax Medical Incorporated; it functions to strengthen the LES, preventing reflux of acidic stomach contents into the esophagus by restoring a natural barrier. Multiple studies demonstrate it is a safe and effective anti-reflux barrier, preserving more normal eating habits and the ability to belch / vomit.
LINX is placed laparoscopically at the gastroesophageal junction for patients with refractory GERD despite maximal medical treatment. Erosion of LINX is a rare with only 15 in over 6,000 patients. When there is an erosion, the device requires removal, most often laparoscopically with a concomitant Nissen fundoplication. Of the patients with this complication, there have been no associated major morbidities such as death, ICU admission, or esophagectomy. As more of these devices are placed worldwide, the ability to manage complications successfully will become increasingly important. In this video case report, a patient will be presented in whom LINX erosion was treated endoscopically. This is the first reported case in the US and the second internationally.

OBJECTIVE: The objective of this clinical vignette is to present a novel method of treating LINX erosion, an increasingly popular device used to treat a highly prevalent disease.

METHODS: A sixty-four year old male presented with laryngopharyngeal reflux (LPR) refractory to medical management. He underwent LINX placement in August of 2014. Eight weeks later, he presented to an outside facility with dysphagia. He underwent EGD with esophageal dilation up to a 60 French Savary-Gilliard dilator. The dysphagia improved, but the patient presented that evening complaining of chest pain. Neither cardiac etiology nor esophageal perforation was identified. At three months post-implant, he was without dysphagia, heartburn, or LPR symptoms. In December of 2015, the patient returned to clinic with recurrent symptoms of LPR. EGD revealed that the LINX system had partially eroded through the esophagus. The patient was hemodynamically stable and tolerating a diet; therefore, the decision was made to proceed with endoscopic removal electively.

RESULTS: The patient underwent endoscopic removal of LINX 3 weeks after it was determined to have eroded. He was admitted to the hospital, underwent esophagram, and started clear liquids. The patient was discharged with instructions to advance his diet as tolerated. His recovery was uneventful save persistent LPR symptoms.

CONCLUSION: LINX was approved by the FDA in 2012 for the treatment of GERD refractory to medical management. Typical complications include: dysphagia, esophageal spasm, and recurrence of LPR symptoms. This clinical vignette provides an attractive approach to treating erosion of LINX endoscopically in the event of esophageal erosion.

VIDEO SESSION

Poster #191

MINIMALLY INVASIVE THORACOABDOMINAL REPAIR OF IATROGENIC DIAPHRAGMATIC HERNIA

KJ Dickinson MD, V Fikfak, MD, EY Chan, MD, PG Khaitan, MD, MP Kim, MD
Presenter: Karen Dickinson MD
Houston Methodist Hospital, Houston, TX

BACKGROUND: Iatrogenic injury to the diaphragm leading to herniation of stomach is a rare event.

OBJECTIVE: To demonstrate the feasibility of a minimally invasive thoracoabdominal approach to iatrogenic left diaphragmatic hernia repair

METHODS: A 30 year old male with history of recurrent pneumonias was treated at an outside institution with lung decortication and modified Eloesser flap for empyema. After the operation, patient's family was told that there was an injury to the diaphragm. After the operation patient was in the hospital for 3 months due to respiratory failure. Once he recovered from the episode, patient started to have nausea and vomiting after meals. A CT of the chest and abdomen revealed a left sided diaphragmatic hernia containing the most of the stomach and parts of transverse colon.

RESULTS: We started with laparoscopy, which revealed a large defect in the left hemi-diaphragm, containing stomach and colon. We placed total of three laparoscopic ports. We created a window in the defect to visualize the chest cavity and placed four thoracoscopic ports. We carefully mobilized the stomach and the colon and reduced both structures into the abdomen using electrothermal bipolar tissue sealing system. After the reduction, we visualized the chest cavity through the diaphragm defect to complete the left lung decortication. The defect was closed with 0 non absorbable V-Loc suture using Endo Stitch. Then we placed 10 x 15 cm dual mesh over the primary repair in the abdominal side of the diaphragm using Endo Stitch. Patient's lung fully expanded after the surgery and patient was able to tolerate a diet without nausea and vomiting. He was discharged home on POD #4. On follow up patient was tolerating a regular diet with no pain from the operation.

CONCLUSION: Iatrogenic diaphragmatic hernia is a difficult to repair due to difficulty in visualizing both the thoracic and abdominal cavity. A minimally invasive thoracoabdominal approach can be performed and it may provide better outcome compared to other surgical approaches.

VIDEO SESSION

Poster #192

LAPAROSCOPIC CHOLECYSTECTOMY IN A PATIENT WITH SITUS INVERSUS

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Presenter: Tamara Saunders MD
UTHealth, Houston, Tx

BACKGROUND: Laparoscopic cholecystectomy is safe and feasible in a patient with situs inversus.

OBJECTIVE: To demonstrate safety with aberrant anatomy in laparoscopic cholecystectomy.

METHODS: Video submission of demonstration of laparoscopic cholecystectomy in a patient with situs inversus.

RESULTS: No adverse outcome in this patient.

CONCLUSION: Laparoscopic cholecystectomy is safe in a patient with situs inversus.

VIDEO SESSION

Poster #194

LAPAROSCOPIC REMNANT CHOLECYSTECTOMY AFTER 52 YEARS OF OPEN CHOLECYSTECTOMY

Mohanad Elshiekh MD, Hassan Ahmed MD MRCSI, Edwin Onkendi MB ChB
Presenter: mohanad elshiek MD
TTUHSC, lubbock, texas

BACKGROUND: Cholecystectomy is the standard treatment of symptomatic cholelithiasis. Recurrence of biliary symptoms following cholecystectomy, either open or laparoscopic technique is a diagnostic and therapeutic dilemma, Causes are either biliary or extra-biliary. Symptoms of biliary origin usually due to retained bile duct stones or strictures. Rarely, they caused by stone recurrence or inflammation in a gallbladder remnant. Diagnosis and management of acute cholecystitis or cholelithiasis in gallbladder remnant is difficult.

OBJECTIVE: To report a case of symptomatic cholelithiasis in a gallbladder remnant, presented 52 years following open cholecystectomy and successfully treated by laparoscopic completion cholecystectomy, proving that the laparoscopic approach is feasible and safe.

METHODS: 52 years after cholecystectomy, a 75-year-old woman represented with right upper quadrant abdominal pain, nausea, vomiting followed by fever, there was no history of alcohol or drug ingestion. On examination there was right well healed subcostal Khocher scar, localized right upper quadrant and epigastrium tenderness, A diagnosis of choledocolithiasis and symptomatic cholelithiasis was made after abdominal ultrasound identified a fluid filled pouch with stones and sludge, magnatic resonance imaging (MRI) confirm remnant gallblader,dilated common bile duct (CBD) with stones , and endoscopic retrograde cholangiopancreaticography (ERCP) confirmed a diagnosis of biliary obstruction ,sphicterotomy performed with passage of stones and pus. The patient then subsequently underwent laparoscopic completion of cholecystectomy and intraoperative cholangigram to identify the cystic duct. Preoperative attempt was made to obtain previous medical records, but were not able to obtain them, because the hospital was closed and the surgeon was deceased.

RESULTS: Patient underwent uneventful laparoscopic completion of cholecystectomy and intra-operative cholangiogram, Pending pathology report.

CONCLUSION: Patients underwent partial cholecystectomy are at risk of symptomatic gallbladder remnants, once diagnosed patient should subjected to completion cholecystectomy via open or laparoscopic technique .We advocate for laparoscopic technique , however advanced laparoscopic training is required and a routine intraoperative cholangiography should be performed.

VIDEO SESSION
Poster #187

ROBOTIC ASSISTED LAPAROSCOPIC LEFT PARADUODENAL HERNIA REPAIR
WM Chan MD, N Smallwood MD, DS Keller MS MD, R Rodriguez-Ruesga MD
Presenter: WInston Chan MD
Baylor University Medical Center, Dallas, TX

BACKGROUND: Our patient is a 65 year old female with a history of recurrent diverticulitis who presented for an elective robotic assisted laparoscopic low anterior resection. During the initial medial-to-lateral dissection, she was found to have a left paraduodenal hernia which hindered the dissection. This type of congenital hernia is not very common but incidental discovery during abdominal surgery mandates knowledge of its altered anatomy and operative management techniques.

OBJECTIVE: In this intra-operative video, we seek to demonstrate that a robotic assisted laparoscopic left paraduodenal hernia repair is feasible and safe. A literature search demonstrates that this minimally invasive approach has not been previously reported.

METHODS: The Da Vinci Xi robotic platform was used for the surgery. Four robotic 8 mm trocars were placed in a straight line from the right anterior superior iliac spine to the left costal margin so that the sigmoid colon and splenic flexure can be triangulated with the robotic instruments. The dissection started medially at the inferior mesenteric vein (IMV) which was located overlying a loop of small bowel. The ligament of Treitz and 4th portion of the duodenum could not be visualized and a majority of the jejunum appeared to be posterior to the descending mesocolon. The presence of a left paraduodenal hernia was acknowledged and enterolysis began robotically at the neck of the hernia where the small bowel and mesentery were adhesed. Once the small bowel and mesentery were freed from the hernia, the IMV was isolated, ligated, and divided. This maneuver opened up the hernia sac and reduced the small bowel from the hernia. The robotic assisted laparoscopic low anterior resection proceeded afterwards as planned without conversion to an open procedure.

RESULTS: The patient's post-operative course was uneventful.

CONCLUSION: As with any incarcerated hernia, the treatment involves reducing the hernia, restoring normal anatomy, and repairing the defect. For a left paraduodenal hernia, caution must be taken as to not injury the inferior mesenteric artery or left colic artery. Although it is advisable not to ligate the IMV as a step in repairing the hernia, ligation and division of the vein is a lengthening maneuver for a low anterior resection and was thus appropriate for this case. Robotic management of this hernia is a safe and feasible option and allowed the main operation to maintain a minimally invasive approach.

VIDEO SESSION
Poster #193

LAPAROSCOPIC OMENTAL DRAPE PATCH FOR DUAL PERFORATION OF STOMACH AND DUODENUM, AFTER RADIOTHERAPY OF ESOPHAGEAL CANCER.
HA AHMED MD, AH ARYAIE MD
Presenter: HASSAN AHMED MD MRCSI
TEXAS TECH HEALTH SCIENCES CENTER, LUBBOCK, TX

BACKGROUND: Gastrointestinal toxicity is a known side effect to ionizing radiation therapy. Can be acute or chronic. The pathophysiology of the injury ranges from mucosal inflammation to cell death, ischemia and fibrosis. Very little literature documented gastric perforation after radiotherapy for liver or for pancreas tumors. However, we found no literature documented a dual

perforation of stomach and duodenal after radiotherapy of the esophagus. Neither there was a literature to describe our method of laparoscopic omental drape patch.

OBJECTIVE: To describe a rare complication of radiotherapy for esophageal cancer; gastric and duodenal dual perforation, and laparoscopic management with omental drape patch.

METHODS: 61-year-old male with a history of stage IV mid-esophageal squamous cell carcinoma, who had a laparoscopic jejunostomy (J-) feeding tube placed about a month prior to this presentation. Presented 3 days after he underwent radiation, and since that time, he started having mid-epigastric and right upper quadrant abdominal pain. Initial Computed Tomogram (CT) of chest-abdomen-pelvis revealed pneumoperitoneum. There was no contrast leakage from the J-tube into the intra-abdominal cavity. No pneumomediastinum. The patient was offered diagnostic laparoscopy. The abdomen was surveyed, and by lifting the liver, we found a very friable area of distal stomach and proximal duodenum. This appeared to be related to the recent radiation. The remainder of the abdomen was examined, and there were no other signs of perforation. There was a small amount of succus and bile at the area of perforation, Morrison's pouch, and the perisplenic/paracolic gutter. That was suctioned. The area appeared very large. This was not feasible for a typical gram patch repair. The omentum was draped over this area. In order to secure the omentum and use it as an omental patch, tacking sutures were placed on the omentum, right crus and the falciform and gastric fundus to create a nice covering drape with the omentum over this large area with perforation(s). Two drains (19 French round Blake) with one over this area of perforation below the liver and another down in the pelvis to catch any drainage down into the intra-abdominal cavity. The J-tube was also examined, and it was securely stamped against the abdominal wall, and there were no signs of perforation or extravasation from this area that would explain free air.

RESULTS: Post-operatively, the patient had uneventful recovery, was started on J-tube feeding and was discharged in good condition 1 week later. He was seen 3 weeks post-operatively in clinic, was doing well and started to have some oral liquids.

CONCLUSION: We are reporting a case of effective laparoscopic management of rare complication of dual perforation of stomach and duodenum due to radiotherapy with omental drape patch. To our knowledge, there is no similar case report in the literature.