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PROCEEDINGS

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COMPARATIVE ANALYSIS OF ROBOTIC ASSISTED NEPHROURETERECTOMY VS NON ROBOTIC NEPHROURETERECTOMY A RETROSPECTIVE ANALYSIS

Authors: (underline presenting first author must be a student, resident or fellow)
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Background:
Many surgical strategies are in use for nephroureterectomy. These surgeries can be performed open, hand assisted laparoscopic, laparoscopic with cystoscopic excision of the distal ureter, and robotic assisted laparoscopic. With the robotic assisted technique still being a relatively new method, we set out to compare it to the other strategies mentioned.

Objective:
The purpose of this study was to compare the perioperative and postoperative results of robotic assisted nephroureterectomy to all other strategies performed at the hospital in the same time frame. This will empower us to make recommendations to our patients that maximize their safety

Design/Methods:
Medical records for patients undergoing a nephroureterectomy between February 2006 to July 2016 were analyzed retrospectively. The demographic, perioperative, and follow-up data of all of these patients were compared. The surgeries were performed by ten different surgeons during this time period. All comparisons were made either using a T-test or Fischer’s exact test.

Results:
The robotic assisted nephroureterectomy group (n=42) showed statistically significant benefits as compared to all other methods of nephroureterectomy (n=44). These groups showed no difference in average age (69.2 vs. 68.9, p=0.92), BMI (28.7 vs. 27.2, P=0.17), preoperative GFR (62.1 vs. 64.4, P=0.61), and the percent of patients who were found to have transitional cell carcinoma upon biopsy (62% vs. 82%, P=0.21). However, the two groups showed a significant difference in estimated blood loss (97.9mL vs. 245mL, P=0.0002), hospital stay (3.1 days vs. 4.9 days, P=0.0004), operative time (203 min. vs. 274 min., P=0.0001), and 30 day complication rate (31% vs. 56%, P=0.029). Even when open surgeries were excluded and robotic assisted was compared to only other minimally invasive surgeries (n=28), significant benefits were still observed amongst the robotic assisted group. A significant difference was seen in estimated blood loss (97.9mL vs. 195mL, P=0.003), hospital stay (3.1 days vs. 4.3 days, P=0.03), operative time (203 min. vs. 268 min., P=0.0001), and 30 day complication (31% vs. 59%, P=0.026).

Conclusions:
Overall, the robotic assisted nephroureterectomy appears to be beneficial to patients. While promising, a larger sample size and comparison of oncologic outcomes would allow for a more complete evaluation of the different methods of surgery.
15 YEAR RETROSPECTIVE REVIEW OF GASTROPARESIS PATIENTS WHO UNDERWENT GASTRIC PACEMAKER PROCEDURE

Authors:
Vasu Chirumamilla M.D. (PGY1), Ashutosh Kaul M.D., Vincent Blood, M.D., Srikanth Parsi M.D., Roman Kremen M.D., Aditya Safaya M.D., Seungwhan Pee M.D. and Thomas Cerabona M.D.

Background:
After ruling out functional dyspepsia and mechanical obstruction, one of the most common chronic upper digestive tract neuromuscular disorders is Gastroparesis. The incidence is over 4 million, but the etiology is a wide number of causes ranging from Diabetes Mellitus, Iatrogenic, Viral, Medications, Autoimmune, Postsurgical, and Idiopathic. Patient’s reality of this disease has swung the pendulum to explore a surgical approach for management. One of the most common surgical options is Gastric Electrical Stimulation (Gastric Pacemaker) for patients’ experiencing gastroparesis who were refractory to lifestyle modification and medical therapy.

Objective:
The primary objective is to assess the improvement of gastroparesis after placement of a gastric pacemaker by a retrospective collection of the following data/variables: Date of Birth, Age (calculated, at time of admit), Gender, Race and Ethnicity, Smoking status, Comorbidities, Injury Date, Admit Date/Discharge Date, Length of State (calculated), OR Dates, OR Time, Inpatient, Outpatient, Product used, and causes (Idiopathic, Iatrogenic, Postsurgical, Diabetes). Correlation with nausea/vomiting, DM by measuring Hb A1C, and abdominal pain.

Design/Methods:
Retrospective Review of 15 years of one Gastroenterologist and one Minimal Invasive Surgeon experience of Gastric Pacemaker Implantation; Patients all had documented Gastroparesis with Endoscopies (Preop and Intraop) along with Gastric Emptying Studies. 119 patients underwent (Enterra System Component 3116 -Neurostimulator) Gastric Pacemaker placement Laparoscopically with confirmation with Intraoperative Endoscopy. Neurostimulator activated in operating room; There were no conversions to open. Approx. 90 minutes average for surgical procedure. Abdominal Pocket placement – Leads pulled through port to site. Disc sutured to stomach wall with 1-2 sutures; Lead suture wire clipped to disc with 1-2 clips; Length of Stay 1- days

Results: Total N=136; 119/136 underwent Laparoscopic Gastric Stimulators – No conversions; Age Mean 44.8 +/- 12.8 years; Eitology; Idiopathic N=63 (46%); DM 1 and 2 {N=66(41%), Post-Surgical N=9(6.6%)}, Collagen Vascular Disease N=5(3.6%), Parkinsonism/Neurological N=3(2.2%). Gender Predominantly Female (97-100% based on etiology); Improvement of nausea and vomiting in DM 44 (81%); Idiopathic 22 (39%); Post-Surgical 6 (85%); Collagen Vascular 2 100%; All patients 74 (62%}); A1C improvement 34 pts Avg 8.7 to 7.9 at 1 year follow up. Complications: No operative mortality; Three late wound infections / years after implantation / requiring removal /2males; Two lead erosions/requiring revisions; Three had local abdominal pain at generator site/ revisions; Five intolerable electric shocks at site requiring explantation; Fifteen battery changes required

Conclusions:
Gastroparesis is a combination of neuromuscular disorder involving upper digestive tract. Nausea and vomiting was the biggest improvement after gastric pacemaker placement. Interestingly our study had a predominance of female distribution regardless of etiological factor. Preliminary data suggests that Hb A1C has decreased after Gastric Pacemaker placement but more patients required to be conclusive. Gastric Pacemaker is definitely not a cure for gastroparesis but is a useful tool in the armamentarium when managing these patients.
TITLE:

DOES ROBOTIC SURGERY OPTIMIZE ONCOLOGICAL OUTCOMES IN OVERWEIGHT MALES WITH LOW RECTAL CANCER: A POOLED ANALYSIS OF 836 CASES.

Authors:
Chudner A (PGY3), Gachabayov M, Bergamaschi R.

Background: It is known that the fulcrum effect of non-articulating laparoscopic instruments leads to coning in android pelvis. Transanal total mesorectal excision (TME) has been proposed to address the suboptimal oncological outcome of laparoscopic proctectomy in overweight males with low rectal cancer.

Objective: The aim of this study was to determine whether robotic proctectomy could optimize the circumferential resection margin (CRM) and the quality of TME in this subgroup of patients.

Design/Methods: Individual data of robotic proctectomies for rectal cancer performed by 6 surgeons were pooled. Males with BMI over 25 kg/m² with rectal cancer within 6 cm from anal verge were compared to their counterparts. CRM involvement was defined by pathologists as <2mm, whereas TME quality was assessed macroscopically and categorized as complete, near complete and incomplete. Student’s t and Chi-squared tests were used to compare continuous and categorical variables. Multivariate logistic regression was performed to determine independent predictors of CRM involvement.

Results: 106 overweight males with low rectal cancer were comparable to 730 remaining patients for age (p=0.14), ASA score (p=0.07), co-morbidities (p=0.09). Operating time was significantly longer (362 vs. 301 min; p<0.001). CRM was significantly narrower (6.6±4.8 mm vs. 7.7±8.9 mm; p=0.04), whereas TME quality did not differ (86.25%:8.75%:3.7% vs. 88.5%:9.2%:2.8%; p=0.67). Being overweight male with low rectal cancer was an independent predictor of CRM involvement at multivariate logistic regression (p=0.01).

Conclusions: The data in this study do not support robotic proctectomy as a solution to optimize oncological outcomes in overweight males with low rectal cancer due to increased CRM involvement.
OUTCOMES AFTER NON-TRANSPLANT SURGERY IN CIRRHOTIC PATIENTS

Authors:

David Cohen MS, Roxana Bodin MD, Kevin Wolfe, PhD, Thomas Diflo MD FACS, Gregory Veillette MD FACS

Background: Surgery in the cirrhotic patient has always been fraught with trepidation. These patients are at high risk for complications, such as liver decompensation, bleeding and death. Therefore, elective surgical procedures are typically delayed, or not pursued altogether, which can result in devastating consequences for the patient.

Objective: To review a single surgeon experience with non-transplant procedures in the cirrhotic patient, and to demonstrate that surgery in these patients is safe.

Design/Methods: Retrospective chart review

Results: Over a four year span, there were 53 patients who underwent 61 procedures. The procedures included umbilical hernia, ventral hernia, inguinal hernia, cholecystectomy, bowel resection, kidney transplantation and liver resection. The MELD scores at the time of surgery ranged from 6-23, and 12 patients (22.6%) had a MELD score equal to, or greater than, 15. Thirty six patients (59%) had ascites at the time of surgery. No patients required intra-operative blood transfusions and one patient required take-back to the operating room. There were eleven cases with post-operative complications (18%) and there was a single mortality within 90 days (1.9%).

Conclusions: Non-transplant surgery in the cirrhotic patient can be done safely with low mortality. However, these cases should always be done with caution and at experienced centers capable of managing the patient with chronic liver disease.
TITLE:

IMPACT OF ROBOTIC LEARNING CURVE ON CIRCUMFERENTIAL MARGIN AND QUALITY OF TOTAL MESORECTAL EXCISION IN RECTAL CANCER

Authors:
Artem Dyatlov, MD (PGY5), Mahir Gachabayov, MD, Roberto Bergamaschi, MD
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Background:
A beneficial impact of robotic proctectomy on the depth of the circumferential resection margin (CRM) is expected due to the robot’s articulating instruments in the pelvis. There are however concerns about a detrimental impact of robotic proctectomy on the quality of total mesorectal excision (TME) due to the lack of tactile feedback.

Objective:
The aim of this study was to assess how CRM and TME quality are affected by the surgeons’ learning curve.

Design/Methods:
Individual patient data of robotic proctectomies for resectable rectal cancer performed by 5 internationally recognized expert surgeons were pooled. Learning curve was defined as the number of cases needed before reaching competency and included learning phase (LP) and plateau phase (PP). CRM was histologically measured by pathologists in mm. TME quality was macroscopically assessed by pathologists and classified as complete, nearly complete or incomplete. T-test and Chi-squared tests were used to compare continuous and categorical variables, respectively.

Results:
Data on 235 patients were available. 83 LP patients were comparable to 152 PP patients for age (p=0.2), gender (67.5% vs. 65.1% males; p=0.72), BMI (p=0.82), ASA score (p=0.86), previous abdominal surgery (p=0.923), stage (p=0.17), neoadjuvant chemoradiation (p=0.13), distance of tumor from anal verge (5.8±4.4 vs. 5.5±3.3; p=0.56). CRM did not differ (7.7±11.4 mm vs. 8.4±10.3 mm; p=0.62). TME quality was significantly improved in PP patients as compared to LP patients (73.5%:10.8%:4.8% vs. 92.1%:5.2%:2.6%; p<0.001).

Conclusions:
While the circumferential resection margin was not affected by the surgeons’ learning curve, the quality of total mesorectal excision significantly improved during the surgeons’ plateau phase. This study confirms that lack of tactile feedback in robotic surgery entails a learning curve.
LAPAROSCOPIC SPLENIC FLEXURE MOBILIZATION FOR SIGMOID OR RECTAL RESECTIONS: A SYSTEMATIC REVIEW AND META-ANALYSIS OF OBSERVATIONAL STUDIES.

Authors:
Hanjoo Lee, MD (PGY3); Mahir Gachabayov, MD, PhD; Roberto Bergamaschi, MD, PhD, FRCS, FASCRS, FACS

Background: There is no consensus in the literature whether splenic flexure mobilization (SFM) should be performed selectively or routinely for sigmoid or rectal resections.

Objective: The aim of this study was to evaluate the impact of splenic flexure mobilization on anastomotic leak and surgical site infection rates in sigmoid or rectal resections.

Design/Methods: The Scopus, MEDLINE and Pubmed databases were systematically searched. Inclusion criteria were clinical studies comparing laparoscopic SFM to non-SFM during sigmoid or rectal resections. Non-comparative studies and studies comparing open or robotic SFM, and non-clinical studies were not included. Anastomotic leak and surgical site infection were the primary endpoints. Statistical heterogeneity and between-study variance were assessed using I² and Tau² statistics, respectively. A random-effects model was used for variables with heterogeneity exceeding 50%.

Results: Six studies with 12,790 patients were analyzed including 5,089 SFM and 7,701 non SFM. The overall bias risk was found to be high. No significant difference was found in anastomotic leak rates when SFM patients were compared to their non-SFM counterparts [OR(95%CI) = 0.96 (0.50-1.82); p=0.903; number needed to treat (NNT)=98]. SFM patients had longer operating time [OR(95%CI) = 4.84 (1.39-16.80); p=0.013] and increased SSI rates when compared to their non-SFM counterparts [OR(95%CI) = 1.21 (1.09-1.35); p<0.001; NNT=29]. Superficial incisional SSI rates were significantly higher in SFM patients [OR (95%CI) = 1.29 (1.14-1.47); p<0.001; NNT=53], whereas there was no significant difference found in organ/space SSI rates.

Conclusions: Laparoscopic SFM was not associated with significantly decreased anastomotic leak rates. SSI rates were significantly increased in patients undergoing laparoscopic SFM. This favors individualized decisions rather than routine implementation.
TITLE:
REDUCTION IN SURGICAL SITE INFECTIONS (SSI) IN COLON PROCEDURES AFTER IMPLEMENTATION OF A SSI PREVENTION TASK FORCE AT WMC

Authors:
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Background: Surveillance data at WMC regarding the evidence of SSI in colon surgery reported to the Center for Medicaid & Medicare Services (CMS) in 2015 and placed on Hospital Compare has demonstrated a need for improvement. An SSI Prevention Taskforce was formed in 2016 in order to familiarize WMC surgeons with the current CDC/National Healthcare Safety Network (NHSN) definitions and institutional reporting requirements to CMS.

Objective: To evaluate the effectiveness of the WMC SSI Taskforce in reducing the SSI in colon procedures by elucidating for the surgeons the current NHSN reporting requirements, definitions, and elements of the Colon Bundle.

Design/Methods: A retrospective chart review from Westchester Medical Center and MidHudson Regional Hospital was performed to evaluate the number of SSIs in colon surgeries in patients ≥ 18 years of age between 2015 and first half of 2017. It also evaluated if there was consistent compliance with the elements of a Colon Care Bundle advocated by the New York State Partnership for Patients, and adherence to prevention of SSI by leaving wounds open in the NHSN wound classification of contaminated and infected cases. The standardized infection ratio (SIR) according to NHSN guidelines was compared during the same period. A SIR is calculated by dividing the observed SSI events to the number of predicted SSI events based on given patient and hospital demographics. These risk factors include diabetes, ASA score, gender, age, BMI, closure technique, and whether the facility involved is an oncology hospital. This value is compared with 2015 National baseline SIR of 1.0.

Results: During the first half of 2015, there were a total of 80 colon procedures. According to NHSN guideline, there were 9 SSIs. The number of predicted infections was 2.499. This resulted in SIR of 3.601. During the second half, there were 54 cases with 3 SSIs and SIR of 1.731. During the first half of 2016, there were 65 cases with 1 SSI and SIR of 0.52. During the second half of 2016, there were 81 cases with 2 SSIs and a SIR of 0.841. During the first half of 2017, there were 94 cases with 1 SSI and a SIR of 0.378.

Conclusions: After implementation of the WMC SSI Prevention Taskforce, and improved adherence to the elements of the Colon Care Bundle (normothermia, glucose control, antimicrobial prophylaxis, increased perioperative oxygenation, skin preparation, clean standardized fascial closure wound management) and NHSN definitions, the number of SSIs at Westchester Medical Center and MidHudson Regional Hospital were greatly reduced since 2015. The risk-adjusted SIR remained significantly lower than national baseline SIR of 1.0. Inclusion in the operative dictation of the required elements that need to be reported to CMS will facilitate chart abstraction by the nursing personnel in the Infection Control Department (duration of operative procedures, diabetes status, emergency operative procedures, height and weight, use of wound protector, closure with non-contaminated instruments, change of gown, gloves prior to fascial closure, wound classification, and primary or non-primary closure).

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SARCOPTIC IN CHILDREN WITH PERFORATED APPENDICITIS

Authors:
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Background:
Decreased skeletal muscle mass, or sarcopenia, has been shown to be associated with worse postoperative recovery and a higher risk of complications in adult surgical patients.

Objective:
We hypothesized that pediatric patients with complicated appendicitis may experience sarcopenic changes over the course of their treatment.

Design/Methods:
The medical records and computed tomography scans of 36 pediatric complex appendicitis patients who had both pre-operative and post-operative computerized tomography scans at our hospital were reviewed. Changes in psoas muscle area were examined using linear mixed models with random patient-level intercept and time effects.

Results: The median change in body mass index (BMI) among all patients from admission to discharge was -0.8 kg/m² (interquartile range -1.3, -0.2). The mean percentage change in psoas muscle area per day over the course of appendicitis-related treatment was -0.81% (95% CI -1.12, -0.50) (p<0.001). The relative decrease in psoas muscle area per day did not vary by initial BMI, gender, or race (P >0.10 for all interactions).

Conclusions:
Our data suggest that pediatric patients with complex appendicitis experience sarcopenic changes during their hospital admission. Given previous reports that sarcopenia is a significant predictor of worse surgical outcomes, more investigation is warranted to assess whether these changes are associated with post-surgical complications and to evaluate potential interventions that may prevent these changes.
**TITLE:**

QUANTIFYING THE USE, YIELD, AND COST OF HEAD CT SCANS AMONG INTOXICATED TRAUMA PATIENTS: DO CLINICAL CHARACTERISTICS MATTER?

**Authors:**

Matthew McIntyre, BA (MS2), Nikathan S. Kumar, MS, Elizabeth H. Tilley, PhD, Saranda Gashi, MPH, David J. Samson, MS, Ayman El-Menyar, MD, Rifat Latifi, MD

**Background:** Head CT scanning (h-CT) remains an essential tool for the initial evaluation of trauma patients. There is some concern, however, that the overuse of scanning technologies leads to excessive healthcare costs. Scanning guidelines are based on clinical presentation; however, prior studies have shown that alcohol intoxication is associated with markedly elevated odds of receiving an h-CT.

**Objective:** The goal of this study is to determine the use, yield, and cost of h-CT in relation to clinical findings among alcohol intoxicated trauma patients.

**Design/Methods:** In this 4-year retrospective cohort study (2013-2017), we identified all level 1 and 2 trauma patients (≥14 years) who presented to the ED with alcohol intoxication (BAC> 10mg/dL) and analyzed the use, yield (significant, incidental, no findings), and cost of h-CT scans. We computed a clinical score based on the presence of the following findings: GCS <13, evidence of trauma above the clavicles, amnesia, loss of consciousness, headache, vomiting, and seizures. Scores ranged from 0, having no evidence, to 7, having evidence of all clinical findings listed.

**Results:** During this period, we identified 1,347 intoxicated patients presenting to the emergency department, of whom 437 were activated at level 1 or 2 (average BAC: 212.3±89.2 mg/dL). The majority (71.9%) were male (average age 39.64±16.06 years). Overall, 409 (93.6%) patients received an h-CT, however, only 83 (19.0%) had acute findings; 59 (13.5%) patients had incidental findings, and 266 (60.9%) had no findings on h-CT. The total cost of all h-CT scans performed in the ER was $150,837.00. An increased clinical score was found to be significantly associated with an acute finding on h-CT (p<0.0001) but not with incidental findings (p=.898). We found that the presence of one or more of these clinical features is highly sensitive (97.6%; 95% CI: 91.6-99.6) but not specific (13.9%; 95% CI: 10.5-18.0) for identification of an acute finding on h-CT.

**Conclusions:** Among intoxicated trauma patients, 93.6% received a h-CT, but only 19% had acute findings. Acute findings on scanning were associated with a more severe clinical presentation. These results show that the development of intoxication-specific scanning guidelines that rely on clinical exam may reduce over-scanning.
Background:
Medulloblastoma (MB) is the most common malignant pediatric brain tumor. It is genetically defined into 4 subgroups, which defines the clinical course of the disease. Despite current treatment modalities including surgical resection, radiation, and chemotherapy, there are still significant morbidities and adverse side-effects. Recently defined genetic pathways could possibly offer a better management and treatment of patients with MB. The HIPPO pathway has recently been shown to intersect with PI3K and Sonic Hedgehog (SHH) pathways to modulate mTOR, an important regulator in cell growth and migration.

Objective:
In this investigation, we aim to establish that the HIPPO and mTOR pathways can be suppressed by specific inhibitors to suppress growth and migration of MB cells.

Design/Methods:
Protein expression involved in AKT/mTOR and HIPPO pathways was measured using Immunohistochemistry (IHC) in MB. Scratch and chemotactic migration was used to assess the motility of MB cells following treatment with inhibitors of the aforementioned pathways. Cell cycle analysis and proliferation were measured using EdU and MTT techniques, respectively. SiRNA treatment was used to inhibit HIPPO pathway. MiRNA-29, which mediates mTOR pathway by modulating PTEN levels, was investigated.

Results:
A significant number of MBs expressed activated pAKT and pmTOR, along with YAP, the downstream effector of HIPPO pathway. Treatment with inhibitors of PI3K/AKT (LY294002) and mTOR (rapamycin), given with EGF, significantly reduced cellular motility. Furthermore, SHH inhibitor cyclopamine given with LY294002 or rapamycin also significantly reduced cellular motility. Cell proliferation was suppressed by inhibition of HIPPO pathway using 3 unique 27mer duplexes of YAPI siRNA treatments. Additionally, the combined treatment of SHH with either LY294002 or rapamycin caused maximum suppression of cellular growth.

Conclusions:
The recently defined signaling pathways of MB offer new potential targets for therapy, in that our results demonstrate combined targeting of mTOR/HIPPO pathway with SHH provides alternative strategies for treatment of MB, and offers a targeted therapy for improved prognosis.
MANAGEMENT STRATEGIES FOR COMPLICATIONS OF AXILLARY ARTERY INJURY FROM EXTRA CORPOREAL MEMBRANE OXYGENATION CANNULATION.

Authors:
A. Safaya MD (PGY3), M. Xu MD, S. Babu MD, R. Mateo MD, F. Carroll, A. Goyal, I. Laskowski MD

Background:
Extra-Corporeal Membrane Oxygenation (ECMO) has become a significant and widely used tool for management of patients with severe cardiac and pulmonary dysfunction refractory to conventional management. ECMO related vascular complications have been well described. The frequencies of such complications have been on a rise owing to the increasing popularity and usage of ECMO. Recognition and management of ischemic and hemorrhagic complications related to femoral arterial cannulation has been well described and studied. Axillary artery is frequently used as a cannulation site in selected patients to avoid cannulation of femoral artery and hence, complications arising from it. The data, however, on management of complications arising from axillary artery cannulation has been lacking.

We present our experience with management of ECMO related axillary artery injuries through a series of six cases.

Objective:
We study the different presentations and management of axillary artery injuries related to ECMO cannulations with attention to re-vascularization strategies.

Design/Methods:
We present 4 patients, from June 2016 through May 2017, who underwent ECMO support for severe cardiac illness and cardiogenic shock with Veno-Arterial cannulations, of either one or bilateral, axillary arteries at some point of hospitalization. Of the 4 patients involved there were a total of 6 axillary arterial cannulations. Two patients had undergone bilateral axillary artery cannulations. Vascular complications were presented and recognized as vessel related bleeding, blow-out, distal limb ischemia and infections involving either the native vessel, the vascular graft or surrounding soft tissues. Operative Managements were individualized and included revascularization of the limb either alone or accompanied by serial soft tissue debridement and wound care.

Results:
In the four patients described, a total of six arterial cannulations were performed. The two most common complications observed were bleeding (4/6) and infections (3/6). Almost all required resection of the vessel/graft (4/6). Almost all cases had some kind of revascularization procedure (5/6) performed. The various bypass strategies were individualized and included: Carotid-Brachial (1/5) Subclavian-Brachial (3/5) Axillary to Brachial (1/5) bypass. The preference for bypass graft conduit was the use of native vein whenever feasible (2/5). Cadaveric saphenous vein grafts were used for one case and in one case a prosthetic graft was chosen as a bypass conduit. Successful revascularization with distal limb perfusion was achieved in all patients (5/5). The upper limb was preserved in three of the four patients. One patient had developed hypo-perfusion related severe limb ischemia requiring bilateral hand amputation prior to ECMO placement.

Conclusions:
In the era of increasing use of axillary artery cannulation to prevent lower extremity ischemia by sparing femoral vessels, a higher incidence of vascular complications from axillary artery injury is anticipated. We emphasize early recognition of injuries and prompt revascularization followed with serial soft tissue debridement and wound care to prevent devastating complications such as hemorrhagic shock, distal limb ischemia, gangrene or loss of limb.
Oral Poster Presentations

(In alphabetical order)
TITLE:

ACUTE MESENTERIC ISCHEMIA: UNCOMMON ETIOLOGY

Authors:

Clara Angeles (PGY 2), Sateesh Babu

Background:

Acute mesenteric ischemia (AMI) is most commonly the result of embolic or thrombotic occlusion of the Superior Mesenteric Artery (SMA). Thrombosis occurs in older people with severely atherosclerotic arteries with flow limiting stenosis or occlusion. Embolic occlusion, on the other hand, may be seen in both young and old. The most common cause of embolic occlusion is cardiac – atrial fibrillation, valvular heart disease, acute myocardial infarction, ventricular aneurysm or atrial mixoma. Occasionally, acute aortic dissection may also present with visceral malperfusion syndrome. We present two cases of AMI due to embolic occlusion, the source being free floating large mural thrombus in proximal aortic segment with no clear etiology.

Cases Description:

Case 1:

38 year old man with no significant past medical history presented as a transfer from outside hospital after one day of abdominal pain and new onset nausea, vomiting and non-bloody diarrhea. A CT scan showed thrombus in the aorta extending into the celiac artery and the superior mesenteric artery. Upon arrival he was hypotensive, tachycardic and severely acidic. He was emergently taken to the operating room for exploratory laparotomy, embolectomy of the celiac artery and SMA, thrombectomy of the aortic artery, resection of 210 cm of ischemic small bowel and cholecystectomy. Bowel was left in discontinuity. The next day patient was noted to have absent femoral pulses and returned to the OR for further exploration. He underwent open thrombectomy of the left iliac artery, endovascular thrombectomy and nitroglycerin infusion of the SMA, stent placement of the left common iliac artery and four compartment fasciotomy, along with re-exploration laparotomy with resection of the distal ileum and right hemicolecotomy. Patient continued to have worsening kidney and liver function, developing multiorgan system failure and disseminated intravascular coagulation. After a long discussion with the patient’s family about his prognosis, the decision was made to make patient comfort measures only.

Case 2:

61 year old female presented with one day history of abdominal pain, sudden in onset, poorly localized and not related to food intake. She had associated nausea, vomiting, bloody bowel movements and general fatigue. Patient had a significant leukocytosis and lactic acidosis and CT scan was performed which showed infarcts to the right kidney and spleen with normal appearing bowel. Patient was transferred to WMC where a CTA revealed nonvisualization of the SMA approximately 1.5 cm after its takeoff from the aorta in addition to pneumatosis in several bowel loops, also with splenic and renal infarction. Patient underwent exploration of SMA with embolectomy, small and large bowel resection. She returned to the operating room on two more separate occasions and further small and large bowel resections were performed leaving behind approximately 45 cm of small bowel and 20cm of ascending and proximal transverse colon. Investigation of the proximal thoracic aorta was warranted which revealed a large filling defect within the mid descending aorta.

Conclusions:

Acute mesenteric Ischemia is a serious clinical entity with fatal consequences if diagnosis is missed and treatment delayed. When cardiac cause is ruled out, we recommend investigating the entire proximal aorta with imaging studies to identify the source of embolus and prevent recurrent embolic episodes. Removal of mural thrombus surgically or with exclusion of that aortic segment by covered stent may be required in addition to standard embolectomy of SMA.
RETAINED GLASS IN PLEURAL CAVITY: IS CHEST XRAY ENOUGH?

Authors:
Clara Angeles (PGY2), Jorge Con.

Background:
For minor penetrating chest trauma due to stab wound in the hemodynamically stable patient, an upright chest radiograph should be sufficient to determine main injuries. In children, the performance of a chest tomography after minor trauma is discouraged because the findings rarely influence the clinical management. Furthermore, children are more radiosensitive and have a longer potential lifespan in which to express radiation-induced tumors. But, is chest x-ray enough to identify potential foreign objects retained after penetrating injuries? We present a case of a retained piece of glass in the chest cavity unable to be detected in seven chest radiographs over the course of one week.

Case Description:
16-year-old male presents to the emergency department after penetrating chest injury. Caretaker reports patient had been pushed into a shattered picture frame, a piece of glass caused a small laceration to the right lateral chest. Wound was clean with no fragments found on local exploration. Chest x-ray showed a moderate right-sided pneumothorax, no foreign bodies were seen on two consecutive x-rays. A right-sided pigtail was placed with adequate re-expansion of the right lung. Pigtail was removed after two days and patient was discharged home in stable conditions. A total of seven chest radiographs were performed throughout his admission.

Two weeks later, patient is brought into the emergency department after presenting with severe right-sided chest pain while playing in gym class for the first time. Chest x-ray reveals a radiopaque foreign body along the right diaphragm. CT abdomen/pelvis showed a 5 cm linear foreign body in the right costophrenic angle. Patient underwent video-assisted thoracoscopy surgery and removal of foreign body. A piece of glass was retrieved from the right pleural cavity, adjacent to one of the lower ribs.

Discussion:
Radiography is an important tool in the initial diagnosis and follow-up imaging of foreign bodies. Nonetheless, the visibility of a non-metal object on a radiograph can depend on its size, radiopacity, anatomic location, patient’s body habitus and all the surrounding anatomic structures (5). Plastic and organic foreign bodies (such as wood) are not usually visible on radiographs as they are radiolucent. Stone foreign objects (such as porcelain) are radiopaque and generally visible on x-rays (4). Glass is very particular in terms of its radiographic visibility. All glass foreign objects are radiopaque, but the thickness of the object, the surrounding tissue and location alters the ability to see it on radiographs (5). Tomography has the highest sensitivity to detect all foreign objects (6). CT detection rate is not affected by location of the foreign body (6). In our case, the failure of multiple radiographs to detect a glass foreign object resulted in a delayed diagnosis and treatment.

Conclusion:
Judicious CT scanning is recommended in children because the risk of an occult internal injury is very high in these patients. Glass foreign objects are particularly missed on x-rays. We suggest that all pediatric patients with penetrating injury with non-metal objects should eventually undergo a CT scan focused on the area of impact.
Background:

Myasthenia gravis (MG) is an autoimmune disease characterized by the development of antibodies against acetylcholine receptors at the neuromuscular junction, resulting in severe weakening of striated muscle, to the point of impairing vital functions. The thymus plays a main role in MG by producing these abnormal antibodies. Most patients with MG have a morphological abnormality of the thymus: hyperplasia (65%), thymoma (10-15%) or atrophy. For decades, thymectomy has been a mainstay in the treatment of MG, even in the absence of a thymoma. In the present case, we introduce the current indications for thymectomy in MG and delve into the innovative robotic-assisted technique.

Case Presentation:

63-year-old male with recent diagnosis of myasthenia gravis is admitted after he was found unresponsive, intubated for airway protection. Patient had been recently discharged from an outside hospital after presenting with progressive dysphagia and respiratory failure, intubated and admitted for approximately 2 weeks with diagnosis of generalized myasthenia gravis crisis. On arrival at Westchester Medical Center, patient was admitted to the neurological intensive care unit with respiratory failure caused by myasthenia gravis. CT scan showed no evidence of thymoma. He received 2 doses of IV Immunoglobulin and six sessions of plasmapheresis. He was scheduled for robotic-assisted thoracoscopic and radical thymectomy. Patient tolerated the procedure well. No acute intraoperative or postoperative events. He was discharged to acute rehabilitation in stable conditions.

Conclusions:

Thymectomy has consistently shown to improve the course of Myasthenia Gravis and reduce the overall use of immunosuppressive therapy. A consensus has not been reached on the precise indications for performing this surgical procedure. As a general rule, we understand that young and recently diagnosed patients highly benefit from thymectomy compared to medical therapy alone. The superior mediastinum is difficult anatomic area to approach through conventional thoracoscopy. Robotic-assisted thymectomy has been introduced as an excellent minimally invasive approach to the thymus. The dexterity and improved visualization that it provides may facilitate the minimally invasive approach and improve outcome.
ULTRAFILTRATION FAILURE ON PERITONEAL DIALYSIS: A RARE LEAKAGE OF DIALYSATE INTO THE RETROPERITONEUM

Authors:

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Background:
Peritoneal dialysis (PD) is a modality of renal replacement therapy used by 11% of dialysis patients worldwide, a presumed 272,000 people. It has proven efficacy and offers several advantages over hemodialysis with regard to patient lifestyle and mortality. Nonetheless, problems may arise. The most common are: inflow/outflow failure, exit site infection, and extra-peritoneal dialysate leakage. Others include: peritonitis, edema of the abdominal wall and scrotum, inguinal hernia and bowel perforation. These complications could potentially lead to ultrafiltration failure and decreased clearance. Surgical evaluation will often be required for abdominal symptoms and for catheter malfunction. Most cases of extra-peritoneal leakage involve extension into the subcutaneous tissue of the abdominal wall, the peri-catheter site, the pleural space and the groin. We are reporting a much rarer circumstance (with only a few cases ever noted worldwide): a leakage of dialysate into the retroperitoneum.

Objective:
This case details an uncommon manifestation of a not so uncommon problem of dialysate leakage. Given its rarity, the natural history of the problem is not known and guidelines for management have not been established. Questions remain regarding how long the peritoneum needs to heal, when PD can be resumed and what dwell volume is appropriate upon re-initiation. This case serves as a touchstone for further inquiry amongst those in the surgery community who may be summoned to evaluate a patient with catheter malfunction.

Case Discussion:
An 81 year old male on PD for two years presented to his nephrologist complaining of abdominal distension and pain, a six kg weight gain, and a decrease in PD drainage. A CT scan of the abdomen and pelvis with intraperitoneal contrast demonstrated dialysate extension through the right paracolic gutter into the right retroperitoneal space, indicating peritoneal injury and communication. Patient had a history of chronic constipation and straining for bowel movements but no history of significant trauma. The patient was admitted to the hospital, where he was switched to hemodialysis following tunneled catheter placement. While hospitalized, he remained hemodynamically stable with no signs of fluid overload or uremia. He was discharged after five days. Currently, the patient continues hemodialysis as an outpatient. He is awaiting a repeat CT scan to assess if he can resume PD. This is the patient’s preferred mode of renal replacement therapy.

Conclusion:
Peritoneal dialysis remains a viable form of renal replacement therapy for patients with end stage renal disease and offers certain benefits over hemodialysis. Nonetheless, complications arise that require surgical evaluation. Therefore, it behooves surgeons to familiarize themselves with them. This case spreads awareness of a very unusual problem. Doing so will increase the likelihood of a timely and appropriate intervention and reduce patient morbidity.
A CASE OF SPONTANEOUS INTESTINAL PERFORATION FOLLOWING ACUTE MYOCARDIAL INFARCTION

Authors:
A Azim (PGY1), H Lee , A Haider, J Choi, P Patel, G Lombardo, J Con, R Latifi, J Savino.

Background:
Non-Occlusive Mesenteric Ischemia (NOMI) refers to ischemic injury to bowel in absence of any organic occlusion of the mesenteric vessels. Although the incidence of NOMI has declined due to improved hemodynamic monitoring, when it occurs the diagnosis is often delayed due to low index of clinical suspicion, resulting in acute abdominal catastrophe. We present an interesting case of spontaneous colonic perforation secondary to NOMI following acute myocardial infarction.

Case Presentation:
Patient was a 66-year-old man presented with inferior wall STEMI, ventricular fibrillation, cardiac arrest, Insertion of Impella device and placement of intra-Aortic balloon pump requiring pressor support. Patient’s clinical course was complicated by sudden onset of severe abdominal pain and distension associated with multiple episodes of vomiting. CT scan revealed right colonic pneumatosis warranting an emergent trip to operating room. Intraoperatively ascending colon was found ischemic extending into 1st part of transverse colon with perforation. Extended right hemicolectomy with end ileostomy was performed. Patient’s postoperative course was uneventful and was successfully discharged home with follow up in 2-3 months for reversal of ileostomy and restoration bowel continuity.

Conclusion:
Despite strict hemodynamic monitoring in critical ill patient threshold for NOMI should be kept low. Anticipation and early diagnosis is key to prevent morbidity and mortality in subset of patients vulnerable to hemodynamic instability requiring pressor support.
CASE REPORT: ESOPHAGEAL RUPTURE FOLLOWING BLUNT TRAUMA

Authors:
Bravo, Michelle, MD (PGY3), Weigel, Tracey, MD, Kharazi, Alexandra, MD, Latifi, Rifat, MD

Background:
Esophageal rupture due to external blunt chest trauma is exceedingly rare, with estimated incidence of 0.001%. The first series of cases were reported by Vinson in 1936, which included two cases of blunt esophageal injury following motor vehicle collisions. Lower esophageal blunt traumatic injury is rare. Beal et al. conducted a meta-analysis of esophageal perforation cases due to external blunt trauma, finding a total of 96 cases, with 82% occurring above the level of the carina. Though this type of injury is rare, a high degree of clinical suspicion is necessary for diagnosis, as this carries a mortality rate up to 20%.

Objective: Injuries to the esophagus can present a diagnostic challenge, with a reported 70% rate of delayed presentation. Patients with esophageal perforation may present with symptoms including dysphagia, odynophagia or chest pain. Objective findings may include pyrexia, tachycardia, increasing subcutaneous emphysema and sepsis. Our patient developed tachypnea, shortness of breath and increasing burden of pneumomedistinum and subcutaneous emphysema, with evolving left pleural effusion. In the setting of trauma, an expanding effusion that was not consistent with a hemothorax in an otherwise healthy patient was an additional anomaly that provided further evidence of underlying injury not found on initial imaging. Imaging with oral contrast has a false negative rate of 36%. An additional barrier to management of esophageal injuries includes the differing surgical approaches indicated once diagnosed. We discuss the complexities of diagnosing and managing esophageal rupture.

Design/Methods: We report a case of lower esophageal rupture with pneumomediastinum and increasing left pleural effusion following high speed motor vehicle collision. The clinical evolution of the patient which prompted suspicion for esophageal rupture is discussed. Operative planning, considerations and technique are described within the body of the case report.

Conclusions: For one to have a successful outcome, one needs to have high index of suspicion of blunt esophageal rupture. Our presentation highlights a need for more standardized diagnosis once clinical suspicion is established. Once diagnosed, repair must be timely. Primary repair is remains the treatment of choice. When delayed diagnosis occurs, options include endoscopic stenting and open repair. Muneer, Latifi et. al. describe a case of blunt traumatic esophageal rupture with delayed diagnosis, where tube thoracostomy followed by thoracotomy and temporary endoscopic stenting was performed. However, with stenting, risk for complication from stent migration exists, especially in a healthy patient without pre-existing underlying esophageal pathology. In this case there was a delay in diagnosis with significant necrosis, thus we employed muscle sparing thoracotomy to create a repair flap. Additionally, flap creation and approach should be considered in long term follow up to assess efficacy of conventional methods of esophageal repair.
TITLE: ROBOTIC SURGERY: THE REALITY, THE COST, AND THE POTENTIAL

Authors: Vasu Chirumamilla M.D. (PGY1), Ashutosh Kaul M.D., Thomas Cerabona M.D., and John Savino M.D.

Introduction
Robotic Surgery is definitely the new growing tool in the shed for surgical procedures. The history of robotics in surgery begins with the Puma 560, a robot used in 1985 by Kwoh et.al. to perform neurosurgical biopsies with greater precision. How has this new revolution been able to meet the expectations of the patients, surgeons, and the hospitals?

Methods
There has been an increasing volume of literature of robotic procedures within the surgical literature in the United States. What are the advantages, disadvantages, or is this just hyperbole?

Results
Published data has reflected advantages and disadvantages for robotic surgery. Some studies justify the cost of robotic surgery to improved patient satisfaction, decreased length of stay (floor or ICU), decreased use of transfusions, conversions to open procedures, and death. Helping aids like Firefly, indocyanine green dye with immunofluorescence (below), may be the game changer in surgery and prevent complications if not death by revealing vital structures to help obtain safe surgical planes.

Conclusion
Robotic Surgery definitely has a niche in the surgical world. It can be embraced as another tool in our armamentarium, or be viewed as the resistance once encountered when Laparoscopic Surgery was introduced. This does not in any way diminish the need to be capable of performing open surgical procedures. Judgment and common sense are still relied upon to convert to open if necessary.
INTESTINAL TUBERCULOSIS REQUIRING SURGICAL INTERVENTION

Authors: J Choi (PGY1), H Lee, A Haider, J Con, K Prabhakaran, R Latifi, J Savino

Background: Miliary tuberculosis (TB) or extra-pulmonary tuberculosis is a result of hematogenous spread that can affect numerous organ systems and comprises roughly 4% of all tuberculosis cases within the United States. The following is a case report of a 36-year-old woman from Ecuador with diagnosed military TB who underwent a diagnostic laparoscopy and drainage of ascites due to bowel wall thickening and abdominal pain. The patient subsequently developed colonic strictures at the hepatic and splenic flexure, and mid-descending colon secondary to abdominal tuberculosis. She went on to have an exploratory laparotomy, subtotal colectomy with end ileostomy and Hartmann’s pouch. It is important to understand that 11% of miliary TB cases have abdominal involvement that can lead to fistulas, perforation and most commonly obstruction.

Objective: Given its non-specific symptoms, intestinal tuberculosis may be difficult to differentiate from other abdominal pathologies, specifically inflammatory bowel disease and intestinal neoplasm. However, in the setting of extra-pulmonary tuberculosis, intestinal tuberculosis should be considered since treatment requires early and aggressive intervention even in young and otherwise healthy patients. Definitive diagnosis can be made by demonstration of Mycobacterium tuberculosis in peritoneal fluid (in the setting of ascites) or biopsy of the involved intestinal site.

Design/Methods: The following is a case report completed through patient chart review:

Discussion:
Abdominal tuberculosis is a relatively rare complication of miliary TB and tends to target the liver, peritoneum, and/or intestines. The clinical signs of intestinal TB include diarrhea (11-37% of patients), right lower quadrant mass (25-50% of patients) and constitutional symptoms such as fever, malaise, weight loss, and anorexia. The most common area of involvement is the ileocecal region in 75% of patients, perhaps due to the relative stasis in this area and high concentration of lymph tissue. The mainstay of treatment for abdominal tuberculosis is the same as pulmonary TB: rifampin, isoniazid, pyrazinamide, and ethambutol. In 90% of cases, patients with ascites usually see improvements within the first several weeks of initiating therapy. Symptoms of intestinal TB such as ulcerations, erosions, and inflammation have also been shown to improve within the first two weeks of therapy.

In this particular patient, antituberculous therapy was started after her diagnostic laparotomy which showed improvement of her lactic acidosis and abdominal pain. Colonoscopy showed several areas of ulcers that were Mycobacterium tuberculosis positive on biopsy. Unfortunately, healing ulcers in the setting of antituberculous therapy has been shown to exacerbate the formation of strictures due to scar tissue formation. In some cases, patients with multiple strictures have been shown to be less likely to respond to antituberculous therapies. Although the patient showed signs of improvement, her lactic acidosis began to increase roughly two weeks post initiation of medical therapy along with rectal bleeding and signs of obstruction. Ultimately, in this particular patient, surgical intervention was warranted due to high-grade obstruction.

She tolerated the procedure well and was ultimately discharged to home in stable condition to follow-up in surgery clinic within 1-2 weeks for evaluation of wound closure and ileostomy reversal.

ABDOMINOPERINEAL RESECTION FOR PERFORATED RECTAL CANCER PRESENTED AS FOURNIER’S GANGRENE

Authors: Chudner, Alexandra (PGY3); Latifi, Rifat

Background: Perforated rectal cancer presenting as necrotizing fasciitis is a rare phenomenon. There were 20 cases reported in the past 20 years. Of these cases, 13 presented as Fournier’s gangrene, 6 presented as necrotizing fasciitis of the thigh and 1 presented as necrotizing fasciitis of the anterior abdominal wall.

Case: 78 year old male with no known medical history presented to the emergency room with several weeks of cramping abdominal pain, as well as rectal pain and bleeding. In the past day he noticed scrotal tenderness and enlargement. He also had a 6 month history of progressive weakness, falls, and urinary and fecal incontinence. He had not seen a doctor in many years and never had a colonoscopy. He had a 20 pack year smoking history and a family history significant for colon cancer. On exam appeared cachectic; he had supra-pubic tenderness to palpation, scrotal tenderness and erythema tracking to the perineum (Fig 1), and on digital rectal exam he had a palpable mass. He had a low grade temperature and a leukocytosis of 36,000. His CT scan showed extensive subcutaneous emphysema (Fig 2). Patient was taken to the operating room emergently and underwent a wide debridement of his perineum and scrotum (Fig 3), a damage control laparotomy and an abdominoperineal resection and a temporary abdominal. The following day, the patient was taken back to the operating room for further debridement, as well as abdominal washout, placement of a pelvic vicryl mesh and abdominal closure, and supra-pubic catheter placement. Next the patient underwent placement of testicles into subcutaneous thigh pockets (Fig 4). He underwent several more debridements, partial closure, wound vacuum placements and eventual skin graft was discharge to a rehabilitation facility. His pathology showed a rectal adenocarcinoma T3N1 5-8cm from the anal verge, which corresponds to Stage III cancer. The patient was offered chemotherapy but he declined.

Discussion: Perforated rectal cancer as initial presentation is a rare occurrence. Perforated rectal cancer presenting as necrotizing soft tissue or Fournier’s gangrene is an even rarer occurrence. Perforated tumors present an entry focus for bacterial translocation that might penetrate the subcutaneous soft tissues. This causes bacterial infection involving both aerobic and anaerobic organisms: E coli, Bacteroides fragilis, Enterococcus spp, and mixed anaerobes. The infection arises from the rectum and spreads along Colles’ fascia. It can spread posteriorly to the ischiorectal fossa and subsequently to the buttocks and thighs or it can spread anteriorly and involve the scrotum and penis. The mainstay of treatment is extensive debridement, adjunct antibiotics and nutritional support. A colostomy is often needed at least for fecal diversion. In high rectal cancers, the issue arises of performing an anterior rectal resection, Hartmann’s procedure or abdominoperineal resection (APR). APR has the advantage of eliminating all infective focuses in the region and is recommended in reducing the rate of positive resection margins. Data suggests that in the group that underwent APR, whether initial or delayed, and Hartmann’s procedure, survival was 100%. On the contrary, the survival with only a loop colostomy was 80%. This can be offered to patients with advanced disease, poor general status, older age or hemodynamic instability. Long term survival data in regards to the rectal cancer is unknown because of small sample size and insufficient follow up.

Conclusions: Fournier’s gangrene secondary to perforated rectal cancer is a rare phenomenon but aggressive treatment with abdominoperineal resection and wide debridement is required.

References:
A PECULIAR VISCERAL LESION

Authors: Chudner, Alexandra (PGY 3); Weigel, Tracy; Dong, Xiang

Background:
An adrenal incidentaloma is a mass lesion greater than 1 cm in diameter, serendipitously discovered by radiologic examination. The discovery raises two questions: is it malignant and is it functional? The frequency of adrenal adenomas is about 5-10% and it increases with age. Large adenomas (> 6 cm) are relatively uncommon. The likelihood of an adrenal cortical carcinoma is about 7% for adrenal mass 4-6 cm and about 25% for lesions > 6cm. Adrenalectomy is indicated for all biochemically confirmed functioning cortical neoplasms and those with suspect radiographic findings, regardless of tumor size.

Case:
Our patient is a 59 year old male with extensive past medical history including diabetes, coronary artery disease, and myocardial infarction who presented with worsening diabetes and dehydration recently to an outside hospital. He underwent CT of the abdomen and pelvis which showed a well-circumscribed 8.5 x 9.2 x 8.5 cm solid mass with calcifications in the left upper quadrant of the abdomen of unclear origin. A fine needle aspiration showed a histologically low grade neoplasm with acinar and neuroendocrine features. Hormonal work up revealed elevation of catecholamines: dopamine, epinephrine, norepinephrine, as well as metanephrines and normetanephrines, raising the suspicion of paraganglioma or pheochromocytoma. Our patient was started on doxazosin at 2mg/day, with dosage increased to 32mg/day to control his elevated blood pressure. Following alpha blockade, the patient underwent a robot-assisted left adrenalectomy for the large tumor in the left upper quadrant. The lesion was identified to be an enlarged pheochromocytoma that was growing from the left adrenal gland. Peri-operative management of his labile blood pressure from his pheochromocytoma included alpha agonists and antagonists along with judicious fluid management. His final pathology was consistent with pheochromocytoma, of diffuse growth, confined to the adrenal gland measuring over 10x10x7cm; with a PASS score of 2 indicating a low grade malignant potential.

Discussion:
The evaluation of a patient with an adrenal incidentaloma begins with a history and physical. The next step is hormonal testing to evaluate for evidence of aldosteronoma, pheochromocytoma or cortisol producing tumor. FNA biopsy of adrenal lesions should only be considered if metastatic disease or infection is suspected due to risk of triggering severe hypertension associated with pheochromocytoma. Current imaging modalities including triphasic CT, contrast enhanced MRI have allowed for accurate description of indeterminate retroperitoneal tumors. Our patient presented with an atypical location for a giant pheochromocytoma initially suspected to be a paraganglioma due to the proximity to the mesentery. Preoperative alpha adrenergic blockade along with close communication with anesthesiology intra-operatively is crucial for safe surgical resection. Although traditional surgical dictum recommends 6-8 cm as upper limits for minimally invasive approach for adrenalectomies, careful dissection and pre-operative planning can render minimally invasive approaches safe for these surgical resections. Compared to laparoscopic adrenalectomy, the use of robotic assistance has been shown to shorten operative time and decrease the rate of open conversion. It also has the advantages of shorter hospital stay, reduced pain, less blood loss and lower occurrence of post-operative complications. This is likely because robotic surgery offers superior ergonomics, three-dimensional magnification, tremor filtration and a greater range of motion. The robotic transperitoneal approach specifically, has been shown to provide greater exposure for resection of larger tumors (>5 cm). While cost is often cited as a drawback, there is a decrease is calculated cost difference when depreciation of the robotic system and laparoscopic equipment was distributed over a decade and when total hospital cost is considered (due to shorter hospital stay).

Conclusions:
We present here an interesting case of a giant pheochromocytoma, over 10cm, arising from the left adrenal gland. The case illustrates the importance of considering a pheochromocytoma early in the differential of a large intra-abdominal mass to avoid a potentially dangerous workup. Another consideration is achieving the goal of postural hypotension with alpha adrenergic blockade prior to undergoing operative intervention. Finally, although the larger size and concern for malignancy often encourages the performance of an open adrenalectomy, evidence shows superior outcomes when a robotic platform is used.
Inflammatory bowel disease (IBD), including Crohn’s disease (CD) and ulcerative colitis (UC) is characterized by chronic recurring intestinal inflammation. Despite the advances in medical therapy for IBD, 30-40% of patients with UC and 70-80% of patients with CD require surgical intervention at some time during their lifetime. Decision on surgical intervention can be challenging and indications for surgical intervention differ for the two conditions. Debate also continues as to when is the most appropriate time for surgical intervention. We present a series of four unique cases of inflammatory bowel disease (IBD) that required surgical intervention. The cases include a 14 year old female with a Crohn’s perforation, 14 year old male with Crohn’s stricture, 24 year old male with a perforation from Crohn’s disease, and a 57 year old male with ulcerative colitis and toxic megacolon. The importance of these cases highlights the diversity in presentation and outcomes for a disease that is usually treated by medical management. We also hope to highlight the role surgery has to play in the treatment of inflammatory bowel disease and the need for a close liaison between the gastroenterologist and the surgeon.
EARLY SURGICAL RELEASE OF DIGITAL CONSTRUPTION BANDS IN HARLEQUIN ICHTHYOSIS

Authors:

Leah Harburg MS-3, Kaitlyn Paine MD, PGY-3 and Elizabeth Zellner MD

Background: Harlequin Ichthyosis (HI) is the rarest (~1:300,000 births) and most severe of the congenital ichthyoses, diseases of the skin’s lipid barrier, and has historically been associated with high neonatal mortality. With advances in neonatal medicine, mortality rates have declined but there is still significant morbidity to survivors. The early development of constriction bands of thick hyperkeratinized tissue around the limbs and digits with associated ischemia and resultant autoamputation is a notable problem. The dermatologic literature describes using retinoids to soften the skin and repeated curettage of the localized bands, but digit ischemia and loss has still been reported with these treatments.

Design/Methods: We document a case of surgical release using a complete escharotomy technique on the hands, fingers and feet on day of life 1 when presented with persistent limb and digit ischemia and impending necrosis. The baby girl in our case report presented with harlequin type ichthyosis at birth which had not been diagnosed prenatally. She was transferred to Maria Fareri Children’s Hospital NICU for specialty care. Upon presentation to the NICU, it was noted that her fingers and toes were malformed with shallow web spaces and were deeply violaceous with no capillary refill. Plastic surgery performed complete surgical release of the hyperkeratinic bands in the NICU on DOL 1 under local anesthesia and oral sucrose. Dorsal incisions were made with 15 blade scalpels just through the hyperkeratinic dermis down bilateral arms across the wrist creases and on bilateral legs across the ankles as well as to each individual finger with immediate release of the constriction bands.

Results: The baby girl in our case report tolerated this release extremely well. Given the sharp dissection, she lost approximately 20 cc of blood and did require a 25 cc blood transfusion following the procedure. Immediately, improved perfusion was noted to the fingers and toes. Within twenty minutes of the release, all bleeding had stopped with gentle pressure and capillary refill was less than 3 seconds throughout her digits. Over the following weeks, the natural course of HI progressed and she began to shed the thick scale present at her birth. Meticulous sterile nursing with frequent petrolatum application and QOD dilute bleach baths were instituted. She healed the escharotomy incisions without any visible scarring and with improved development of her digital web spaces. She was gradually transitioned to the non-sterile nursery. She was discharged from the hospital on DOL 30 to her parents’ care.

Conclusions: Given our experience with this child, we advocate for early, definitive treatment of constriction bands in HI by surgical escharotomy. Children with HI heal with minimal scarring, and we were able to observe preservation and further development of all digits while she was in the hospital with no significant morbidity.
A COMPLICATED ENDOVASCULAR ABDOMINAL AORTIC ANEURYSM REPAIR WITH SUBSEQUENT LAPAROSCOPIC CHOLECYSTECTOMY

Authors:

Michael Ingram BA (MS4), Matthew Bronstein MD, Igor Laskowski MD

Background: Abdominal aortic aneurysms (AAA) are relatively common, found in 2-8% of the population. Risk factors for development of AAA are male sex, advanced age, hypertension, coronary artery disease (CAD), and smoking history. Repair of a AAA is often indicated when an aneurysm is >5.5 cm, enlarging at >0.5 cm per year, or the presence of a AAA with abdominal or back pain.

Case: An 80-year-old male with a past medical history of CAD, hypertension, benign prostatic hypertrophy, gastroesophageal reflux disease, sleep apnea, arthritis and >20 pack year former smoker was transferred to WMC for management of an incidentally found large AAA. The patient had been experiencing constant, non-radiating epigastric pain for two weeks prior to presentation which was being worked up by an outside physician. Upon this workup, the patient was found to have a >7 cm infrarenal AAA with extension into bilateral common iliac arteries. At the time of presentation, the patient was afebrile, with a heart rate of 86 and blood pressure of 124/92. Upon physical exam he was found be in no distress and fully alert and oriented. His abdominal exam was soft, nontender and nondistended although the patient continued to complain of mild epigastric pain. A pulsatile mass was palpable with deep palpation. His laboratory values showed a leukocyte count of 8.0, a hemoglobin of 13.8, hematocrit of 42.6, and platelet count of 141. Of note, the patient also had elevated liver transaminases upon presentation. Due to the large size of the AAA and symptomatic abdominal pain the decision was made to proceed with endovascular repair of the AAA. Initial deployment of the graft within the infrarenal aorta was uneventful with an adequate seal at the proximal landing zone, however, during completion angiography it was found that the proximal portion of the aortic graft migrated proximally to partially occlude both renal arteries. It is presumed that this migration occurred during iliac limb deployment. A CODA balloon was unsuccessfully utilized to pull the graft down. Consequently, a stent-graft was placed in the left renal artery to maintain patency. The right renal artery was cannulated via a left brachial cut-down approach due to difficulty in cannulation via the groin access. Upon completion, the aorta showed no evidence of endoleak and both kidneys demonstrated adequate blood flow. The patient was extubated and progressed well post-operatively and was subsequently discharged home on postoperative day four. Of note, days after discharge the patient returned to the emergency department with epigastric pain similar to his initial presentation. During the workup of this pain and survey of his newly placed stent-grafts it was found that the patient also had cholelithiasis. He underwent uncomplicated cholecystectomy a few days later and subsequently recovered with resolution of his abdominal pain.

Discussion: This case provides two interesting points of discussion, the first of which regarding the endovascular treatment of a complex aortic aneurysm with intra-operative problem solving. Migration of a deployed stent graft is not a rare phenomenon. In their review, Spanos et al report an overall migration rate of 8.6%. However, proximal migration of the graft is a much rarer complication. When proximal migration does occur it is generally associated with both shorter proximal and distal fixation neck lengths. This migration is more often associated with aorto-uniiliac limb devices however does still raise the question to the role of stent fixation devices. Another interesting point of discussion is that the patient subsequently underwent cholecystectomy with resolution of his pain. This raises the question of what type of work up a patient with abdominal pain and a large AAA require prior to intervention. Should a thorough investigation occur at the cost of delaying definitive AAA intervention? Is the presence of any sudden onset abdominal pain with a coexistent AAA sufficient evidence to initiate treatment?
CASE REPORT: A 31-YEAR-OLD MAN WITH RELAPSING DIVERTICULITIS AFTER INITIAL CONSERVATIVE MANAGEMENT

Authors:
Michael Iorga, MS3, Stephanie Cruz, MD, Hussein Matari, MD, Marc Wallack, MD, FACS, Daniel Stephens, MD, Robert Santopietro, MD

Background:
Diverticular disease complicated by perforation of the sigmoid colon is generally managed surgically. The classic approach to surgical management has been the Hartmann’s procedure. However, over the last twenty-five years, more conservative surgical procedures have been evaluated with promising results. Two options are primary anastomosis with possible protective ostomy and laparoscopic lavage and drainage (LLD). Here, we discuss the management of a patient with relapse of acute diverticular disease complicated by peri-colonic abscess and perforation.

Case Presentation:
A 32-year-old man presented to the Emergency Department with abdominal pain and one episode of non-bloody diarrhea. His WBC count was elevated at 18.18 K/μL and computed tomography (CT) imaging confirmed the presence of acute diverticular disease. He was diagnosed with Hinchey Stage I diverticulitis, given intravenous antibiotics and fluids, and discharged after his WBC count returned to normal limits and symptoms resolved. Six days later, he presented again with severe abdominal pain and WBC count of 20.64 K/μL. CT imaging confirmed a relapse of acute diverticular disease, complicated by peri-sigmoid mesenteric abscess and contained perforation of the abscess. The abscess was greater than 3 cm in diameter and CT-guided percutaneous drainage of the abscess was precluded by nearby anatomy, so the patient was taken to the operating room for laparoscopic drainage of the abscess with the placement of a Jackson-Pratt drain into the abscess cavity. His post-operative course was then complicated by perforation of the sigmoid colon, as evidenced by feculent material in the drain. He then was taken for primary anastomosis with diverting loop ileostomy and his clinical picture resolved. Twelve weeks later, he underwent successful reversal of the ileostomy and returned to his usual state of health.

Discussion:
Due to individual patient factors, this patient was not managed with CT-guided percutaneous drainage, nor LLD. After laparoscopic drainage of the abscess and placement of a drain in the abscess cavity, a controlled fistula formed between the drain and perforated colon. The authors believe diversion of feculent material through the drain prevented the patient from developing generalized feculent peritonitis. The sigmoid perforation was managed with resection and primary anastomosis with diverting loop ileostomy, which is generally associated with better outcomes when compared to Hartmann’s procedure.

Conclusions:
There is currently controversy between the use of LLD versus Hartmann’s procedure for the management of complicated colonic diverticular disease. The most recent data favors the use of LLD. This case illustrates an example of an initial conservative approach and a variant of LLD that was associated with successful subsequent management with primary resection and anastomosis.
CHOLEDOCHODUDENOSTOMY FOR CALCULI IN THE INFANT

Authors:

Keith, Britny L BS MS (MS3), Ratul Bhattacharyya BA, Sundas Abass DO

Background:

We present an unusual case of common bile duct (CBD) obstruction from gallstones in a premature infant treated by Common Duct Exploration and Choledochoduodenostomy in an abdomen with a ventriculoperitoneal shunt.

Objective:

We present this as an alternative method of treatment when an endoscopic method is not feasible and when a Common Duct T-Tube is thought to be suboptimal.

Design/Methods:

The patient was 26-week-old gestational age and weighed 1.1 kg at birth. The patient had a complicated stay in the Newborn Intensive Care Unit (NICU) with medically treated necrotizing enterocolitis, prolonged parenteral nutrition and the development of a Grade 4 Ventricular Hemorrhage with resultant hydrocephalus managed with a Ventriculoperitoneal (VP) Shunt. In the neonatal period the baby developed cholelithiasis which was managed expectantly with oral bile salts. At age 4 months, the baby developed a rising bilirubin level to 5mg/dL. The Ultrasound showed a dilated CBD to 6mm with calculi. A hepatobiliary iminodiacetic acid (HIDA) scan showed no excretion into the intestine. The baby underwent exploration with a cholangiogram that confirmed the CBD calculi. The cystic duct was too small for trans cystic calculi removal. The CBD was explored and a single obstructing calculi removed via a 3 Fr Fogarty catheter. The patient underwent a choledochoduodenostomy at the site of the CBD exploration because a T-tube in the presence of a functioning VP shunt was determined to be suboptimal. The patient had an uneventful postoperative course and at 16-years of age has normal hepatic and intestinal function though he has had multiple revision of his VP shunt.

Results:

Choledochoduodenostomy is a feasible alternative to T-Tubes in neonates with biliary calculi and a functioning ventriculoperitoneal shunt. This procedure is safe, well-tolerated, and can last several years without significant complications.

Conclusions:

Cholelithiasis is not unusual in neonates secondary to prolonged parenteral nutrition, antibiotic use and immature hepatic function (a). It is, however, unusual for gallstones to migrate and obstruct the common bile duct (b). In the event this occurs endoscopic extraction (c) may not be feasible in every institution. While common duct exploration in infants is rare (d) it can be done safely and performing a choledochoduodenostomy may be an option when T-Tubes cannot or should not be used. It may also prevent the development of a stricture in the common bile duct and secondary biliary calculi. We believe this is the first reported case of CBD obstruction from calculi treated with choledochoduodenostomy.
Background: Sponge bezoars will absorb luminal contents, enlarge, and subsequently harden. There is significant potential for the development of intestinal obstruction and perforation.

Objective: To illustrate complications that may arise in the retrieval of multiple ingested foreign bodies from the gastrointestinal tract.

Design/Methods: We report the case of an unsuspected polyurethane foam (PUF) sponge bezoar causing intestinal obstruction in an 8-year-old boy undergoing laparoscopy for an ingested lithium battery that was adherent to the cecum or the appendix.

Results: The PUF sponge bezoar was removed from the small intestine via laparoscopic-assisted enterotomy. The battery was removed from the colon via colonoscopy after multiple attempts failed to retrieve it during surgery and after surgery with laxatives.

Conclusions: This case raises awareness about the presence of unsuspected multiple ingested foreign bodies causing complications and the benefits of laparoscopy in identifying them and facilitating safe retrieval.

Figures:
CASE REPORT: ACUTE GASTRIC POSTERIOR WALL AND GALLBLADDER NECROSIS FOLLOWING BLUNT ABDOMINAL TRAUMA

Authors: Danny Lascano (PGY2), Patrice Anderson and Rifat Latifi
Department of General Surgery, Westchester Medical Center, Valhalla, New York

Introduction/Background: Abdominal blunt trauma (ABT) is common, however, gastric perforations secondary to blunt trauma is a rare event, occurring around 0.02-1.7%. When identified early, the management is straightforward, however, if there is a delay in the recognition, any hollow viscus injury may present a significant challenge and may be associated with high morbidity and mortality. We present a case of a patient with posterior gastric necrosis following severe ABT, who sustained an avulsion of left renal artery, severe pelvic fracture and small mesenteric injury following a motor vehicle crash (MVC).

Case Description: A 40-year-old morbidly obese female, restrained driver was involved in high-speed car crash with roll over. She was found to have multiple injuries including small left frontal temporal subarachnoid hemorrhage, non-displaced right and left rib fractures, unstable pelvic fracture, left psoas hematoma, left adrenal gland hemorrhage, grade 1 splenic laceration, and left renal artery dissection with near complete de-vascularization of her left kidney. Patient was resuscitated initially with crystalloid, blood, and blood products. Her computed tomography (CT) scan, while showed no injuries to any hollow viscus organs. Her pelvis was externally fixated and her kidney injury was managed non-operatively given her hemodynamic instability. Despite massive resuscitation with blood, and blood products as well as crystalloids she continued to be acidic, developed leukocytosis and required vasoressors for which she was taken to the operating room for exploratory laparotomy, approximately 36 hours post injury. There was a moderate hemoperitoneum and an 8cm tear in the mesentery along the distal small bowel, which was primarily repaired (Figure 1). A necrotic gallbladder (Figure 2) was found and cholecystectomy was performed. Exploration of the lesser sac demonstrated nearly 60-70% of the posterior stomach along the greater curvature was necrotic and nearly liquefied (Figure 3), as well as a small laceration of the spleen with active bleeding. We performed a splenectomy and a modified sleeve gastrectomy. No other injuries were found; a damage control and temporary abdominal closure (TAC) was performed. Patient was subsequently taken back to the operating room for a second look with no additional injuries found and was closed and subsequently discharged on post-op day 41.

Discussion: Our case report is significant because gastric necrosis is rare given how well perfused the stomach is. However, gastric blunt trauma leading to rupture – and which likely co-exists with some elements of stomach necrosis and ischemia, albeit rare, is a well recognized phenomenon with an incidence of 0.02 – 1.7% and with a mortality of 0-66% depending on associated injuries. While the cause of ischemia in our patient is unclear, it is likely that the inciting blunt trauma may have caused contusion, as well as injury to left gastric and left gastroepiploic artery branches, particularly in the phase of her left renal artery injury. This was then further exacerbated by the increasing use of vasoressors causing local vasoconstriction and lead to worsening ischemia and eventual necrosis. This may have been further exacerbated by injury to the spleen, which may have damaged the short gastric and left gastroepiploic arteries. The gallbladder ischemia may be explained by use of vasoressor, although not entirely clear as to the reason why this occurred.
A GIANT FIBROEPITHELIAL POLYP OF THE SMALL BOWEL ASSOCIATED WITH HIGH-GRADE OBSTRUCTION

Authors: H Lee, MD (PGY3); IC Sade MD; S Gilani, MD; MH Zhong, MD; GG Lombardo, MD

Background: A fibroepithelial polyp is a benign tumor of the mesodermal origin. They are most commonly found in lower genitourinary tracts including lower glans penis, ureter, cervix, rectum, and in the anus. When found in the perineum, these lesions are commonly referred to as skin tags. Most of these polyps remain smaller than 5 cm. Unusually large fibroepithelial polyps up to 18 cm or greater had been observed. Rarely, these polyps found in the anus have been associated with obstructive ileus of the gastrointestinal tract. However, small bowel obstruction secondary to a fibroepithelial polyp of the small bowel has never been reported.

Objective: To report a rare case of a giant fibroepithelial polyp resulting in small bowel obstruction.

Design/Methods: This is a case report of a 42-year-old male presenting with 3 day history abdominal pain followed by multiple bouts of emesis. Work up was unremarkable except for mild leukocytosis and hyponatremia. CT scan of the was notable for high-grade small bowel obstruction secondary to a long segment of small bowel small bowel intussusception involving the distal jejunum. There was marked circumferential thickening of the telescoped small bowel loop (A, B).

Results: Patient underwent exploratory laparotomy. A tennis ball-sized mass in the left upper quadrant consisting of intussuscepted small bowel was found. The mass was firm and smooth in texture without any irregularity or nodularity. The involved bowel and associated mesentery appeared normal without any sign of necrosis or vascular compromise. The mass was resected and the small bowel was reconnected with side-to-side anastomosis. The gross pathology was notable for maroon and yellow colored polyloid mass measuring 5x3.5x0.5 cm attached to a mucosal surface of the intestine with a stalk measuring 1x0.8x0.8cm causing intussusception and obstruction (C). The microscopic pathology was consistent with a giant fibroepithelial poly of small bowel with stratified epithelial cells and increased fibrocollagenous material of the stroma. There was no evidence of malignancy (D). Patient subsequently did well and was discharged home.

Conclusions: Fibroepithelial polyps are benign tumors of mesodermal origin. They are usually present in the lower genitourinary tracts or the perineum. Almost all fibroepithelial polyps are asymptomatic and small in size; however, there have been few reported cases of unusually large tumors. Therefore, giant fibroepithelial polyps should be included in the differential diagnosis of large smooth mass of the lower gastrointestinal or genitourinary tracts. The main modality of diagnosis of these tumors remain histological with their characteristically abundant fibrocollagenous stroma and stratified epithelial cells. The biological mechanism of these tumors are largely unknown. Galanis et al hypothesize reactive hyperplasia of the subepithelial connective tissue possibly due to repeated trauma to the area during passage of stool. This notion has been corroborated by a histological study of 40 cases of fibroepithelial poly of the anus that showed morphological similarity to normal anal mucosa. Because these tumors do not have any malignant potential, the surgical intervention is indicated for symptomatic lesions. Few cases of surgically managed giant fibroepithelial polyps in the lower genitourinary tract associated with urinary obstruction have been reported. To our knowledge, this is the first case report of a giant fibroepithelial polyp presenting as high grade small bowel obstruction successfully managed with surgical resection.
Title:
A RARE VARIANT OF LYNCH SYNDROME IN A SEPTUAGENARIAN

Authors:  
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Aedan P. McDonough, M.D., PGY1  
Marc K. Wallack, M.D., F.A.C.S.  
James G. Mariadason, M.D., F.A.C.S., F.R.C.S. (Eng)

Institution:  
Metropolitan Hospital Center, Department of Surgery; New York, NY.

Introduction:  
The incidence of Lynch syndrome in colorectal and endometrial cancer patients is 1-3%. While most patients with Lynch syndrome present with colorectal cancer initially, endometrial cancer may be the sentinel event and these patients may never have colorectal cancer. We report a very rare patient, with prior surgeries for uterine and breast cancers, who first presented to us with intestinal obstruction due to small bowel adenocarcinoma. While under care of the oncologists, she developed dysphagia caused by a rare esophageal tumor and is again being considered for surgical treatment.

Presentation:  
A 76-year old woman presented to the emergency department with progressive dysphagia and right sided abdominal pain associated with vomiting for one month. She reported difficulty in swallowing solids progressing to dysphagia for thick liquids. Computed tomography of chest, abdomen and pelvis revealed a filling defect in the lumen of the distal esophagus due to a mass measuring 3.8cm x 2.2cm x 7.5cm and small bilateral pleural effusions, without invasion of surrounding structures. Esophagastroduodenoscopy revealed a large 10cm esophageal tumor. Pathology and immunohistochemistry confirmed her fourth metachronous tumor; malignant fibrous histiocytoma (MFH). She has been our patient since 2013, when she developed small bowel intussusception secondary to ileal adenocarcinoma (Stage IV). She had small bowel resection and chemotherapy (Roswell Park regimen). This was followed by maintenance sFULV2 treatment but this was foreshortened due to her inability to tolerate the chemotherapy. Prior history included hysterectomy for endometrial cancer in 1975 (age 34), and lumpectomy and radiation for breast cancer in 2011 (age 68) followed by chemo- and endocrine therapy. The patient met Amsterdam II criteria with family history significant for mother with breast cancer, father with gastric cancer, and brother with pancreatic cancer. Genetic workup of the patient conducted after the small bowel resection showed mutation in MSH6 mismatch repair gene.

Management and Outcome:  
During the most recent admission, the patient was placed on full liquid diet with nutritional supplements, and was treated symptomatically for gastrointestinal symptoms of nausea. The patient is having metastatic workup including whole-body positron emission tomography, endoscopic ultrasound, and thoracentesis. The fourth metachronous primary in the esophagus is most unusual and malignant fibrous histiocytoma (MFH) is so rare that we found few reports in Lynch syndrome. A feeding jejunostomy has been placed for nutritional support and in preparation for possible esophagectomy although patient frailty may preclude surgery.

Discussion:  
This case demonstrates an unusually severe and rare presentation of Lynch syndrome with four metachronous cancers (breast, ovarian, small bowel, and esophageal) acquired over several decades. This patient has survived 42 years since diagnosis of her first cancer, (a feat in itself) without developing colorectal cancer. The lifetime risk of developing CRC in patients with Lynch syndrome is 80%, with variability in penetrance for different genes affected. Remarkably, our patient developed esophageal MFH in the context of MSH6 mutation. The true incidence of esophageal cancer in Lynch is unknown, but in one series it was estimated to be approximately 4%. There are only 13 reported cases of esophageal MFH in literature, none of them associated with Lynch syndrome. One study of Lynch syndrome had two individuals who developed MFH out of 23 families studied. Both had MSH2 mutation and their tumors were in skeletal muscles. Genetic testing, recently instituted at Metropolitan Hospital, has uncovered several genetically transmitted cancers. While cancer is a common cause of dysphagia in the elderly, MFH is rare and is something to bear in mind in Lynch syndrome.
NASAL SYNECHIAE IN RELAPSING POLYCHONDRITIS

Authors: Ashley Lloyd, MS4, New York Medical College, Philip E. Zapanta, M.D. George Washington University

Background: Relapsing polychondritis (RP) is a rare disease of unknown etiology that causes recurrent inflammation and scarring to cartilaginous tissues. McAdam et al first described a diagnostic criterion for RP based off the most common clinical presentations. This criterion requires at least 3 out of the following 6 disease manifestations: (1) auricular chondritis, (2) non-erosive inflammatory polyarthritis, (3) nasal chondritis, (4) ocular inflammation, (5) laryngeal or tracheal chondritis, (6) cochleovestibular damage. The modified McAdam criteria was later proposed as either histologic confirmation of disease in the presence of one McAdam’s criterion or response to corticosteroids or dapsone in the presence of two McAdam’s criteria. The most common presenting features of RP include auricular chondritis and polyarthritis, although presentation is highly variable and often times misdiagnosed until chondritis becomes apparent.

At initial evaluation, 24% of patients exhibit nasal chondritis, whereas 53% experience nasal involvement later in the course of the disease. Nasal chondritis in RP involves inflammation of the nasal bridge, typically presenting as tenderness with associated epistaxis or serosanguinous exudate. With time, the cartilage of the nasal bridge is destroyed, resulting in the classic saddle-nose deformity3. On the contrary, nasal synechiae, adhesion formation between the nasal septum and inferior turbinate or lateral wall and middle turbinate, is a typically seen as a minor complication arising after nasal surgery such as septoplasty and inferior turbinectomy. It is uncommon for nasal synechiae to form in absence of a nasal intervention. To our knowledge, there have been no reports of nasal synechiae in patients with relapsing polychondritis.

Objective: Explore a patient with RP who presents with new-onset nasal synechiae in the absence of nasal surgery, focusing on the role of otolaryngologists in RP and the treatment of nasal synechiae in the context of RP.

Methods: Clinical case report

Results: A 42-year-old female with history of relapsing polychondritis requiring multiple interventions for subglottic stenosis presents with new-onset nasal congestion. She has no history of nasal surgery. On exam, she is found to have right-sided nasal synechiae. Treatment was initiated with bi-monthly triamcinolone injections.

Conclusions: Although rare, RP has the potential for devastating consequences due to airway obstruction. Clinical providers, specifically otolaryngologists, should be aware of the potential disease manifestations including auricular, nasal, and laryngeal chondritis, and cochleovestibular symptoms. When these symptoms present simultaneously, a referral to a rheumatologist for work-up may be warranted. Although nasal synechiae in RP has not been previously described, it is possible that this may be a consequence of the inflammatory process related to the disease and treatment with anti-inflammatory medication should be considered.
THE DRAMATIC EFFECTS OF DOCETAXEL, PERTUZUMAB, AND TRASTUZUMAB IN THE TREATMENT OF AN ADVANCED HUMAN EPIDERMAL GROWTH FACTOR 2 POSITIVE FUNGATING BREAST MASS

Authors:
Ilana G Margulies MS, MS-III, Prabhat Bhattarai PA, Judith Zwillenberg MPH, Amit Khithani MD, Marc Wallack MD, FACS, Anitha Srinivasan MD, MPH, FACS

Background:
The development of targeted agents to incorporate into neoadjuvant therapy has been crucial in the effort to prolong survival in breast cancer patients. HER2 targeted therapies, including pertuzumab and trastuzumab, have dramatically improved outcomes for patients with HER2 positive breast cancer. Although many studies have looked at their efficacy as part of a neodjuvant regimen, few reports exist about their efficacy in improving outcomes specifically in HER2 positive fungating breast masses. We present a 40 year-old female patient with a stage 4 locally advanced fungating breast cancer that was ER/PR negative, HER2 positive and resistant to prior surgical resection, which showed dramatic improvement to HER2 targeted therapies.

Objective:
The objective of this case report is to describe a ER/PR negative, HER2 positive fungating breast cancer that showed dramatic improvement to HER2 targeted therapies.

Design/Methods:
The patient presented with a 12 x 10 cm ulcerated fungating breast mass that had been reportedly growing for a year. The mass was located on the inner quadrant of the left breast, and was not accompanied by any palpable axillary lymphadenopathy bilaterally. The patient had a left breast mass excision 10 years prior, and lacked any family history of breast or ovarian cancer. The patient agreed to complete 4 rounds of neoadjuvant chemotherapy with docetaxel, pertuzumab and trastuzumab, but declined further surgical intervention.

Results:
After 4 rounds of docetaxel, pertuzumab and trastuzumab, the mass shrunk to an open 6 x 2 cm wound with healthy granulating tissue towards the nipple and hyperpigmentation at the wound edges. Palpable masses and lymphadenopathy were absent bilaterally. The patient subsequently missed several follow up visits despite persistent attempts to reach her. She presented to the ED 5 months after completing chemotherapy with a small new ulcer on the inner quadrant of her left breast, and then subsequently presented again to the ED 2 months later with a 6.7 x 6.3 cm left axillary sub-pectoral lymph node, which may be consistent with recurrent disease.

Conclusions:
Pertuzumab and trastuzumab are among the HER2 targeted therapies that have been shown to improve outcomes in HER2 positive breast cancers, although few reports exist about their efficacy in improving the outcomes of advanced fungating breast masses. Despite a potential cancer recurrence, the 4 rounds of docetaxel, pertuzumab and trastuzumab dramatically improved the appearance of the ulcerating mass, and gave this patient, who declined further treatment, the ability to live independently with minimal discomfort.
ANALYSIS OF 30 DAY READMISSION TO AN ADULT UROLOGY SERVICE: ASSESSMENT OF RISK FACTORS AND BASIS FOR A QUALITY INDEX METRIC

INTRODUCTION AND OBJECTIVES: Readmission within 30 days of discharge following an in-patient admission is increasingly used as a quality metric. Currently, reported 30 day readmission rates to urology services are largely based on pooled national databases from a wide variety of patient populations and health care settings. We wished to determine a 30 day readmission to the urology service of a tertiary care hospital with high 6 year average case mix index (CMI) of 1.5.

Design/Methods: We reviewed all readmissions within 30 days for any cause following discharge from our adult urology service between January 2010 and December 2015. We also reviewed all readmissions, demographics, and variables following 10 major urology procedures. Non-parametric univariate and regression analysis was considered with an alpha set at 0.05.

Results: We found that our 30 day un-planned readmission rate was stable (β=0.2) over a 5 year period with an overall rate of 2.78% (range 1.66-21.62) (see table). Readmitted patients had a mean age of 61 years and were typically readmitted within 10 days.

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Number</th>
<th>Readmissions (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TURBT</td>
<td>302</td>
<td>6 (1.66%)</td>
</tr>
<tr>
<td>TURP</td>
<td>186</td>
<td>5 (3.23%)</td>
</tr>
<tr>
<td>Radical Prostatectomy</td>
<td>134</td>
<td>4 (3.73%)</td>
</tr>
<tr>
<td>Partial Nephrectomy</td>
<td>119</td>
<td>7 (5.88%)</td>
</tr>
<tr>
<td>Radical Nephrectomy</td>
<td>123</td>
<td>3 (2.44%)</td>
</tr>
<tr>
<td>Ureteroscopy</td>
<td>816</td>
<td>11 (1.35%)</td>
</tr>
<tr>
<td>PCNL</td>
<td>206</td>
<td>6 (2.91%)</td>
</tr>
<tr>
<td>Cystoprostatectomy</td>
<td>37</td>
<td>8 (21.62%)</td>
</tr>
<tr>
<td>Adrenalectomy</td>
<td>22</td>
<td>2 (9.09%)</td>
</tr>
<tr>
<td>Nephroureterectomy</td>
<td>33</td>
<td>1 (3.03%)</td>
</tr>
</tbody>
</table>

Conclusions: Our data provides a 30 day readmission rate for 10 index procedures at a major tertiary care urology service with a complex patient population. Planned follow up with urologic evaluation as an outpatient within 1 week after elective discharge may improve readmission rates.
Background:
Primary polycythemia is a disease entity which we do not see nor treat very often in the surgical field. The cascade of polycythemia to portal vein thrombosis, ultimately leading to bowel ischemia and perforation is rare, however is a potential result from the hyperviscosity. This relationship has been well described in the pediatric literature resulting necrotizing enterocolitis.

Objective:
To review our case and existing literature regarding the relationship between primary polycythemia vera and portal vein thrombosis, as well as bowel ischemia. A confounding factor of the patient being on Humira due to sarcoidosis is also a point for discussion.

Design/Methods:
We present a 42 y/o male who has a past medical history of sarcoidosis on Humira, as well as primary polycythemia vera, who initially came to our institution with complaints of abdominal pain and vomiting. Initial imaging showed findings of portal vein thrombosis which was managed medically with anticoagulation. Subsequent physical exams worsened, and imaging showed pneumoperitoneum, which prompted an exploratory laparotomy. The first operation showed findings of creeping fat, however no bowel perforation. Repeat exploration the following day showed a perforation in the sigmoid colon, and the patient was treated with a Hartmann’s procedure.

Results:
Polycythemia and bowel ischemia has been described multiple times in literature, with relationship to necrotizing enterocolitis. There has also been sparse literature in the adult population for patients with polycythemia causing recurrent small bowel ischemia and perforation. The prevailing theory has been decreased fluidity of the blood and impairs tissue perfusion due to red-cell sludging in the microcirculation, ultimately causing bowel ischemia and necrosis. This may be a disease entity that we should be vigilant about when patients present with symptoms of abdominal pain and imaging showing portal vein thrombosis.

The perforation in the sigmoid colon was not seen on the initial exploratory laparotomy, however found the next day. Methods to improve identification of perforation not seen by the naked eye may require insufflation intraoperatively may be a learning point to improve patient care in the future.

The fact that the patient was on Humira for sarcoidosis may have predisposed the patient to the perforation in the setting of hyperviscosity and portal vein thrombosis as well.

Conclusions:
Polycythemia is a disease which we do not see often in the surgical field, however we should be aware of the potential complications which may require extensive surgical treatment.
BACKGROUND:

Central venous cannulation is associated with a number of complications, including unintended arterial cannulation. There are different techniques in management, including open surgical repair, manual compression, and endovascular approaches.

OBJECTIVE:

The purpose of this case series is to describe our experience with temporary balloon occlusion for unintended arterial catheter removal.

DESIGN/METHODS:

From December 2013 to April 2017, the temporary balloon occlusion method was used to treat 5 patients with accidental arterial placement of central venous catheters of 6 French or larger. The operative technique included obtaining percutaneous arterial access via the femoral or brachial artery. A Sterling balloon of the appropriate size was positioned at the entry of the injured vessel. A wire was then threaded through the unintended arterial catheter and the catheter was removed. The angioplasty balloon was inflated for at least 4 minutes. Angiogram was then obtained at the end of this period. If none or minimal extravasation was noted, the wire was removed and the balloon was again inflated for an additional 4 minutes.

RESULTS:

The temporary balloon occlusion and selective use of stent graft technique was used on a total of 5 patients, 4 men and 1 woman. The subclavian artery was catheterized in 4 of the cases and 1 catheter was misplaced in the common carotid artery. Two of the 4 patients with subclavian artery injury had stent grafts placed over the arterial puncture site due to the presence of severe thrombocytopenia and need of systemic anticoagulation. All cases had no extravasation on completion angiogram.

CONCLUSIONS:

The temporary balloon occlusion method is a novel technique that can reduce the morbidity of removal of unintended arterial cannulation during central venous catheter placement.
SUBCUTANEOUS EMPHYSEMA AFTER PERCUTANEOUS ENDOSCOPIC GASTROSTOMY: A WOLF OR A SHEEP?

Authors:
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Heena Rajdeo, MD Department of Surgery, Westchester Medical Center, Valhalla, New York

Background:
Percutaneous endoscopic gastrostomy (PEG) tubes provide a secure access for provision of nutrition, medications and fluids in patients for whom enteral feeds by mouth are not possible. This case report involves a 59 year old female who developed pneumoperitoneum and subcutaneous emphysema after PEG placement for a recent stroke which caused dysphagia. Pneumoperitoneum is a well documented side effect of PEG placement and is mostly a benign finding if not accompanied by systemic signs. However, subcutaneous emphysema after PEG has rarely been described and is usually related to necrotizing fasciitis. This case study describes the uncommon finding of benign subcutaneous emphysema in order to further differentiate it from necrotizing fasciitis.

Methods:
We present a morbidly obese 59 year old female with BMI of 41 and ESRD, diabetes and CAD. She underwent a PEG placement and then required prolonged insufflation for placement of transgastric jejunal feeding tube. She developed tenderness 3-4 cm above the PEG site, an increase in WBC count and culture positive serosanguinous fluid from PEG site on POD 2. We followed the hospital course of the patient and discuss initial presentation, differential diagnosis and management of the patient.

Results:
Given the difficulty of clinically evaluating a morbidly obsese patient, a CT scan of the abdomen and pelvis with contrast through the G tube was done. This revealed a moderate pneumoperitoneum (which can be expected in the early post-operative period). The scan also demonstrated soft tissue emphysema throughout the left chest and abdominal wall. This finding was worrisome for necrotizing fasciitis and warranted further evaluation. For definitive diagnosis, the patient was taken to the OR for an exploratory laparoscopy. Intraoperative findings were benign and showed no evidence of bowel injury, free fluid or abdominal wall soft tissue infection. The stomach was well opposed to the abdominal wall and showed no leaks or entrapment of small or large bowel. Over the subsequent three days, the patient’s tenderness improved, WBC’s trended down and a repeat CT scan on POD 6 showed improvement of the subcutaneous emphysema. In conclusion, despite the alarming nature of the presentation involving subcutaneous emphysema, this patient’s course was benign and resolved spontaneously.

Conclusions:
This is one of very few reported cases of subcutaneous emphysema after PEG placement that are not associated with necrotizing fasciitis. Although subcutaneous emphysema after PEG should always raise suspicion for the more serious cause, we should also be aware of the possibility of benign subcutaneous emphysema which would be treated by observation only. Necrotizing fasciitis on the other hand requires emergent and aggressive surgical intervention. Due to the infrequency of the condition, there is not yet a set algorithm for management. Some findings that implicate necrotizing fasciitis as the cause, include fever, induration, purulence, changes in myofascial layer (fascial thickening on CT), crepitus at the exit site and a later onset. Through this case we wish to raise awareness of the entity of benign subcutaneous emphysema after PEG. Finally, to further delineate the true prevalence of benign subcutaneous emphysema after PEG, we will perform a retrospective chart review of all patients who underwent PEG placements in the last year at WMC.
DELAYED ACUTE SUBDURAL HEMATOMA (DASH) IN A YOUNG PATIENT IN THE SETTING OF TRAUMA WITH NO HEAD INJURY.

Authors:
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Background:
Delayed acute subdural hematoma (DASH) has been reported and described as a delayed subdural hemorrhage after a patient has had a computed tomography (CT) scan that has been negative for any intracranial injury. DASH, occurring in a young patient without any signs of direct head injury, has not been described in the literature.

Objective:
To review the literature and define early risk factors that may require additional imaging or testing to aid in early detection of DASH and hence, prevention of its devastating consequences

Design/Methods:
We present a case of a young 18 year old male patient involved in a motor vehicle collision presenting with no evidence of direct head trauma based on history, clinical exam or on CT imaging. The patient’s injuries included spine injuries with a blunt cerebro-vascular injury (BCVI). He was subsequently started on antiplatelet-therapy for his BCVI. 24 hours later, the patient developed an altered mental status and a right-sided acute subdural hematoma was discovered requiring emergent hemicraniectomy.

Results:
Although DASH has been described in patients with mild traumatic head injuries, most cases described present in the setting of certain risk factors such as advanced age, anticoagulation therapy, alcohol use and head trauma. As per our review of the literature, there has been no report of DASH occurring in a patient without any signs of direct head injury in the general setting of a traumatic event.

Conclusions:
We advocate that the risk factors raising a high index of suspicion for DASH should expand to include two subsets of trauma patient population undergoing initiation of antiplatelet or anticoagulation therapy: (1) Those with no apparent head injury clinically or on imaging, but having a significant mechanism to suggest a head trauma, and, (2) Those with significant cervical spine injuries.
LAPAROSCOPIC LIGATION OF MIDDLE SACRAL AND INFERIOR MESENTERIC ARTERY FOR PERSISTENT TYPE 2 ENDOLEAK

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Background:
Endovascular repair of abdominal aortic aneurysms (EVAR) have become a standard of care for most uncomplicated infra-renal abdominal aortic aneurysms. With the advent of more sophisticated stent-grafts, it is now possible to extend the endovascular technique to repair juxta-renal aneurysms of the abdominal aorta. Risk of endoleaks in its various types continues to be a common feared complication. A type-2 endoleak may pose a serious challenge often times for endovascular repair. Although, many endoleaks may be dealt with the help of endovascular techniques, some persistent or refractory ones require an open approach, which may bring with itself a burden of other co-morbidities. Hence, a minimally invasive approach is more desirable. We present a case of a persistent type-2 endoleak, after a fenestrated endovascular repair of an juxta-renal aneurysm, from the middle sacral and inferior mesenteric artery refractory to endovascular interventions.

Objective:
To explore the role of laparoscopic surgery, as a minimally invasive technique to approach a type-2 endoleak. Hence, decreasing the risks and morbidity associated with an open repair.

Design/Methods:
We present a case of a sixty-one year old male with a juxta-renal abdominal aortic aneurysm, who underwent a fenestrated endovascular abdominal aneurysm repair (FEVAR). Post operatively, the patient presents at one-year follow-up with increase in abdominal aortic aneurysm sac size. Abdominal aortic angiogram reveals a type 2 endoleak refractory to two separate endovascular attempts to repair the endoleak. Patient undergoes a laparoscopic middle sacral artery (MSA) and inferior mesenteric artery (IMA) ligation.

Results:
Patient undergoes a laparoscopic middle sacral artery and inferior mesenteric artery ligation. The patient is discharged the same day.

Conclusions:
Patient undergoes successful laparoscopic ligation of the IMA and the MSA- the major branches feeding the endoleak. We emphasize and acknowledge the use of minimally invasive laparoscopic techniques for repairing post FEVAR endoleak management that are not amenable to endovascular management. The patient is currently awaiting follow-up imaging studies.
METHICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS APPENDICITIS: A TALE OF TWO CASES

Authors:
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Background:
MRSA is commonly isolated from complicated complex intra-abdominal infections. There have been reports of MRSA isolates from various abdominal infections such as diverticulitis, spontaneous bacterial peritonitis and infected peritoneal dialysis catheters. However, there have been no reports of MRSA related with appendicitis.

Objective:
We present a case series of the first described MRSA isolates from abdominal fluid of two patients presenting with appendicitis and the importance of intra-op peritoneal cultures to guide appropriate antibiotic therapy.

Design/Methods:
We present a case series of two patients who presented with acute appendicitis and underwent laparoscopic appendectomy. They were found to have MRSA isolates from the peritoneal culture specimens.

Results:
The two patients underwent successful laparoscopic appendectomy and were discharged on appropriate antibiotic coverage for MRSA to complete due course of treatment.

Conclusions:
Multiple strategies have been involved to tackle the burden of MRSA infection. Appropriate targeted therapy with source control remains the mainstay of intra-abdominal infections. We present two cases highlighting MRSA isolates from the peritoneal fluid of patients with acute appendicitis. We emphasize obtaining intra-operative cultures during appendectomies to guide appropriate post-operative antibiotic therapy. Appropriate antimicrobial therapy is the mainstay of treating these infections and preventing emergence of multi-drug resistant organisms.
CASE REPORT: RUPTURE OF SUBCAPSULAR LIVER HEMATOMA IN A PATIENT WITH HELLP SYNDROME

Authors:
Schwab, Daniel, MS3, Bravo, M., MD, Lombardo, G., MD, Sogawa, H., MD, Veillette, G., MD, Latifi, R., MD

Background:
Rupture of subcapsular liver hematoma is a rare, but potentially devastating, complication of HELLP syndrome with an incidence of 1 in 45,000-225,000 pregnancies[1-3]. Patients typically present with sudden onset right upper quadrant abdominal pain that radiates to the right shoulder, nausea, emesis, abdominal distention, and hypertension or hypovolemic shock. Typical laboratory findings include severe anemia, elevated transaminases, and coagulopathy. The risk of hepatic rupture in patients with HELLP persists regardless of post-partum status. With only retrospective data available, estimates of maternal mortality with a ruptured subcapsular liver hematoma range between 16%-86%[3-5]. Patients at risk must be intensively monitored. Rarely, hemoperitoneum from ruptured hepatic capsule is encountered incidentally during caesarean section. Herein, we present a case of subcapsular hematoma rupture in a patient with HELLP syndrome post-partum, with chief finding of hemoperitoneum during emergent cesarean delivery.

Case Report:
A 33-year-old female presented as a transfer to our center in critical condition two days post-partum from emergency cesarean section. At the outside institution, the patient underwent cesarean section due to fetal distress and heart rate decelerations on tocometry, as well as maternal clinical decompensation with preeclampsia and hemolysis, elevated liver enzymes, low platelet count (HELLP) syndrome. Intraoperatively, she was noted to have significant hemoperitoneum, for which general surgeons were called into the operating room and Pfannenstiel incision was converted to exploratory laparotomy. Damage control with perihepatic packing was performed, and the patient was taken to the intensive care unit for resuscitation. She returned to the operating room on post-operative day two for washout, with refractory hepatic bleeding, requiring repeat peri hepatic packing. One day later, she was transferred to our center for further care. Upon transfer, the patient was noted to have respiratory failure, elevated liver enzymes, coagulopathy, oliguria with evidence of renal failure requiring initiation of continuous hemodialysis. With combined effort of acute care surgery and hepatobiliary surgery teams, she underwent urgent exploratory laparotomy, abdominal washout, achievement of liver hemostasis. She returned later that day with hepatobiliary and acute care surgical teams for debridement of hepatic hematoma, washout and liver packing with negative pressure wound dressing. She remained critically ill with clinical signs of intra-abdominal hypertension, thus underwent re-exploration with both surgical teams, for possible debridement of liver and control of hemorrhage. Intraoperatively, initial approach included careful irrigation to moisten laparotomy pads prior to removal from perihepatic position. Hemostasis was achieved using diathermy and bipolar cautery as well as point pressure. Intraoperative findings were significant for necrotic edges of the liver requiring further debridement using diathermy, with reinforcement of cellulose agents. The patient had worsening liver function and coagulopathy despite balanced product resuscitation, and was noted to have decreased mental status in peri-operative period, with finding of intraparenchymal hemorrhage. She underwent extraventricular drain by neurosurgery. With multidisciplinary care including critical care, surgery, hematology, renal, she began to regain signs of improved liver synthetic function. She continues to remain critically ill, however, transitioned to intermittent renal replacement therapy with improving LFTs and synthetic function and coagulopathy, as well as improvement in ammonia levels.

Discussion:
Management of a ruptured subcapsular liver hematoma in a patient with HELP syndrome calls for a multidisciplinary approach with collaboration between general surgeons, a critical care team, and hepatobiliary specialists. While management of an unruptured subcapsular liver hematoma in a patient with HELLP syndrome can be managed conservatively, if the hematoma ruptures and the patient becomes hemodynamically unstable, prompt surgical intervention is necessary to avoid patient morbidity and mortality. We recommended transfer to a tertiary care facility with level 1 trauma capabilities and surgeons with expertise in hepatobiliary surgery as early as possible in patients found to be at risk for subcapsular liver hematoma rupture. Our case report highlights a need for early recognition of hepatic compromise in the setting of the unstable obstetric patient. Only with early recognition can prompt and appropriate transfers be made. Surgical approach provides capability for direct hemostasis with a combination of agents available, which can include abdominal packing, topical agents, cautery, bipolar instruments, vessel ligation and lobar resection. Liver transplant may be considered in cases of refractory liver hemorrhage.
Background: Spontaneous free floating aortic thrombi are extremely rare. The pathophysiology has not yet been completely understood and may be related to a pedicle within the aorta allowing for thrombotic formation, coarctation of the aorta in the pediatric population, rupture of an aortic plaque, or a pathologic thrombophillic state. Although a limited differential diagnosis is described, the underlying cause is often unable to be determined during the acute event and generalized anticoagulation therapy is prescribed. We describe two cases of such events and their management.

Objective: Although a limited differential diagnosis is described, the underlying cause is often unable to be determined during the acute event and generalized anticoagulation therapy is prescribed. We describe two cases of such events and their management.

Design/Methods:
Case presentation on two patients, a 38-year old male and a 61-year old female, without family history of thrombophilia or genetic relation presented with isolated, free floating aortic thrombi. The patients underwent exploratory laparotomy with bowel resection.

Results: One patient succumb to the disease process after developing multiorgan failure, the other survived.
AN EPIGASTRIC HERNIA OF UNUSUAL ORIGIN: RARE OR COMMON?

Authors:

Christy Stoller MD (PGY2), Mithi Hossain BS, Srikanth Parsi MD, Thomas Cerabona MD

Introduction: The ventral hernia is a common surgical indication in the United States with roughly 250,000 – 350,000 a year undergoing surgical repair. One such example is the epigastric hernia with etiology varying from traumatic to acquired secondary to structural abnormalities of the abdominal wall.

Presentation of Case: We present a case of a 70-year-old male who was seen in a large academic surgical center with complaint of approximately three years intermittent epigastric abdominal pain. He presented with an accompanying CT scan demonstrating fat containing periumbilical ventral hernia. Taken to the operating room, and starting with diagnostic laparoscopy, the patient’s abdominal wall defect was identified to be at the insertion of the ligamentum teres. The falciform ligament had subsequently herniated through the abdominal wall defect. The hernia contents were amputated, the defect repaired primarily and the patient made a smooth recovery.

Discussion: Historically there have been limited reports of the falciform ligament in relation to an internal hernia, the first being reported in 1929. For example, small bowel found to have herniated through a small defect within the ligament and become incarcerated. However, in our literature search no report of a herniation of the falciform ligament itself through the abdominal wall has ever been reported. There are known morphological variants of the ligamentum teres and the falciform ligament. As described by Oh, et al. the ligamentum teres frequently ends by dividing into several branches in the area cranial to the umbilical ring. On laparoscopic examination, they reported the ligamentum teres hepatis to end at a point of insertion cranial to the umbilicus in approximately 50% of their study population as was found in our patient lending to the idea that a defect at this insertion may be a common cause of the epigastric hernia.

Conclusion: We conclude that this variant of epigastric hernia is perhaps more common than the current lack of literature would support, and diagnosed in our case by the decision to start using laparoscopy rather than with open repair.
TITLE:

DROPPED GALLSTONES AS A CAUSE OF HEMOPTYSIS

Authors:

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Institution:
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Background:
Gallbladder perforation occurs in 10-40% of laparoscopic cholecystectomies with 6-9% having spilled or "dropped gallstones". Fewer than 3 % of dropped gallstones remain unretrieved. The vast majority result in no adverse effects to the patient but in a small subset, intraperitoneal complications such as abscess formation, fistulas and perforations may occur. Occasionally, “dropped gallstones” can even lead to intrathoracic complications including lung abscess, empyema, hemoptysis and even cholelithoptysis.

Objective:
The purpose of this discussion is to highlight the fact that gallstones are not always clinically silent. Our case demonstrates the significance of good imaging; review of a detailed operative report and consideration of an etiology possibly related to prior surgery in a patient who presents with cough, hemoptysis, and a right lower lung mass.

Design/Methods:
We report the case of an 86-year-old man with COPD who underwent emergency laparoscopic cholecystectomy with gallstone spillage 5 months prior to presenting to the emergency department with hemoptysis. CT chest with IV contrast revealed a heterogeneous mass like density within the right lower lung zone. The radiologist reported that the patient had an inflammatory mass straddling the right hemidiaphragm with opacities remarkably like gallstones seen on a preoperative CT; and also “Chilaiditi syndrome”, a radiological finding of dubious significance in which part of the colon lies between the diaphragm and the liver. Review of the operative report confirmed gallstone spillage but a diligent search for dropped gallstones and presumed complete retrieval.

Results:
Given the patient’s previous emphysema a simple lung abscess versus abscess due to dropped gallstones was diagnosed. The patient was treated with IV Rocephin and Zithromax with aggressive pulmonary hygiene including incentive spirometry. CT angiography and Venography were done which again showed probable gallstones at the diaphragm with surrounding abscess formation. Bronchoscopy was done which showed bloody secretions but no fistula formation. Biopsy was not done. The antibiotics regimen was completed which resulted in improvement of the patients symptoms. Patient’s frailty and prior emphysema made Thoracic surgery or open surgery more risky and expectant treatment was adopted for now after family discussion.

Conclusions:
Pulmonary complications from dropped gallstones are quite rare with few cases reported. Hemoptysis may be the presenting symptom with cough and fever. “Cholelithoptysis”( coughing up of gallstones) is even more rare. Our case highlights the importance of good imaging; review of a detailed operative report and consideration of an etiology possibly related to prior surgery in a patient who presents with cough, hemoptysis, and a right lower lung mass. Although the surgeons thought all gallstones spilled had been retrieved some clearly were not. It is unclear if the interposition of colon facilitated the migration of dropped gallstones toward the diaphragm making retrieval more difficult. Conversion to open cholecystectomy is not recommended for “dropped gallstones” since complications are so rare.
TITLE:
THE NEW YORK JOURNAL OF SURGERY: GOALS AND CHALLENGES OF STARTING UP A NEW ONLINE SURGICAL JOURNAL

Authors:
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Background:
Many young physicians and medical students aspire to develop into physician-scientists. The art of manuscript writing and process of publishing in scientific peer-reviewed journals is essential to the physician-scientist career. Yet, the essential skills for writing and publishing is seldom taught in our medical education system.

Objective:
In establishing the New York Journal of Surgery (NYJS), a new surgical open-access online-only journal, we created a forum for peer-review and intellectual discussion on the publishing process among our trainees. Additionally, this journal will serve as a venue for publication of interesting case reports and clinical studies which would otherwise be rejected by established high-impact journals.

Design/Methods:
After several alternative titles were considered, the “New York Journal of Surgery” was selected as the desired journal name. The domain name “www.nyjs.org” was registered and Linux cPanel hosting was set up using GoDaddy web services. Open-source journal software Open Journal Systems (OJS) version 3.0.2 from the Public Knowledge Project was installed onto the nyjs.org host server. After installation, the journal appearance and workflow was customized. LaTeX publishing markup language was used to format double-column journal article PDFs in the following manner: After several templates were considered, open-source LaTeX class files from the Optica Journal of The Optical Society were downloaded and customized for the NYJS under terms of the LaTex Project Public License. BibTeX citation style file vancouver.bst was downloaded from www.icmje.org, and customized for the NYJS under terms of the LaTex Project Public License. Refworks citation management software was used to feed reference metadata from the manuscript bibliography into the LaTeX template. Manuscript text and figures/tables were inserted into the LaTeX template. Final two-column PDFs with journal-quality appearance were then rendered. Peer selection followed standard editorial protocols, including choosing reviewers from outside institutions, without conflicts of interest, and maintaining anonymity of authors and reviewers whenever possible. After peer review and final proofreading, articles were then uploaded onto nyjs.org for free access by the public.

Results:
Using a variety of low-cost online resources, we have established a new journal with a broad focus on surgery and its subspecialties. This creates a space where trainees may develop publishing skills necessary for physician-scientist careers.

Conclusions:
With an automated online workflow, medical students, residents, and attending surgeons can all be involved in the peer-review and publishing process without the need to coincide spatially or temporally. At the time of this abstract submission, three case reports and one opinion piece are under consideration in the peer-review process for inaugural volume of The New York Journal of Surgery.
CASE REPORT: GASTRIC BEZOAR AND SMALL BOWEL OBSTRUCTION IN A PATIENT WITH A BILLROTH II GASTRECTOMY

Authors:

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Anitha Srinivasan MD, Department of Surgery, Metropolitan Hospital
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Background:
Bezoars are a rare complication after distal gastric resections, including gastrectomies with Billroth II or Roux-en-Y reconstructions. We present a case of a 62-year old male who underwent a partial gastrectomy Billroth II anastomosis over 25 years prior and presented with symptoms of small bowel obstruction. Endoscopy done to rule out an anastomotic stricture found a large bezoar within the gastric remnant. This case report highlights the presentation of this rare postoperative complication and its management.

Case Presentation:
A 62-year old male presented to the emergency department with a 10-hour history of left upper quadrant abdominal pain, abdominal distention, and persistent nausea without vomiting. He had previously presented with multiple recurrent episodes of small bowel obstruction requiring nasogastric tube decompression. Past surgical history included Billroth II gastrectomy in an outside country more than 25 years ago to treat peptic ulcer disease. Computed tomography showed a severely distended stomach full of material, with dilated proximal small bowel consistent with an obstruction at the mid-to distal jejunum. These findings were later confirmed by an upper GI series. Upper endoscopy revealed a large gastric bezoar, which filled more than 50% of the stomach. Treatment consisted of 500 mL of Diet Cola BID for 7 days for dissolution of the bezoar. Upon discharge the patient's symptoms had improved, he was tolerating a low residue diet and had resumed regular bowel movements.

Discussion:
Patients with a history of gastric operations have an increased predisposition to gastric bezoars. Some studies have shown that as many as 74% of patients with gastric bezoars have previously had gastric surgery. Impairment of the grinding mechanism is believed to contribute to its pathogenesis. In this patient, long-term treatment with cola beverage was initiated. However, long-term follow-up was not possible due to the patient moving overseas shortly after his hospitalization.

Conclusions:
Gastric bezoars are a rare cause of gastric outlet obstruction. Our case report demonstrates the need to consider bezoar as a source of obstruction in patients with a history of gastrectomy. In this case, surgical intervention was avoided through conservative management with nasogastric decompression for the small bowel obstruction, and dissolution treatment of the bezoar.
TRIPLE ABDOMINAL VESSEL INJURY OF ABDOMINAL AORTIC, CELIAC ARTERY AND SMA FOLLOWING BLUNT TRAUMA- A CASE REPORT AND LITERATURE REVIEW.

Authors:
Niu Zhang, M.D. (PGY4), Francis Carroll, M.D., Kartic Prabhakaran, M.D., Igor Laskowski, M.D., Patrice Anderson, M.D., Shekhar Gogna, M.D.

Background:
Vascular injuries following blunt trauma are very rare. Triple vessel injury of abdominal aortic, celiac artery and SMA following blunt trauma has not been reported in the literatures. The management of blunt vascular injury remains challenge. This is the first case report of the triple abdominal vessel injury following high speed MVC which was successfully treated with endovascular approach.

Case description:
18 year old male was involved in a high speed MVA. He was sustaining abdominal aortic infra renal injury with active extravasation, Intraperitoneal free fluid, retoperitoneal hematoma, Sternal fracture, acute three-column fracture of the L3 vertebral body. He underwent aortogram and distal aortic injury was repaired with 23 Endurant aortic cuff graft with good seal. Exploratory laparotomy was performed which showed multiple mesenteric tears and injuries. 20cm of jejunum was devascularized which was resected. Patient developed ischemic liver and ischemic bowel on POD#6. CTA indicated severe narrowing of the origin of celiac artery and SMA. Aortogram was performed which demonstrated dissection with severe stenosis of superior mesenteric artery and celiac trunk. Angioplasty and stenting of celiac artery and SMA were performed successfully. Excellent flow was noted after stent placement. However, He was complicated with bowel perforation postoperatively. Subsequently he underwent serial surgeries including right hemicolectomy and small bowel resection, temporary wound closure and skin graft. Eventually he was discharged to rehab center in the stable situation.

Conclusions:
Abdominal vascular injury was associated with multi-trauma. Abdominal aortic injuries have been attributed to seat belt associated trauma. In the present of severe spine fracture, the abdominal vascular injury should be investigated. The present of acute ischemic liver following severe abdominal blunt trauma may be associated with celiac artery injury. The celiac artery and SMA injury need early intervention to avoid acute hepatic failure and severe bowel ischemia. Endovascular repair with covered stent is the treatment of choice in the stable patient.