

8:10am-8:20am

Saturday, June 3, 2017

Presidential Session

### **PROMININ-1 EXPRESSION IS ASSOCIATED WITH BILIARY FIBROSIS IN BILIARY ATRESIA**

Jessica A. Zagory MD, William Dietz, Marie V. Nguyen MD, Jorge Bezerra MD, Kasper S. Wang MD

Presenter: Jessica Zagory MD

LSU Health New Orleans, New Orleans, LA

**Background:** Extent of intrahepatic biliary fibrosis at Kasai hepatoportoenterostomy negatively correlates with transplant-free survival in biliary atresia (BA), the leading cause of pediatric end-stage liver disease. We have previously demonstrated the expansion of cells expressing the stem cell marker PROMININ-1 (PROM1), within regions of BA-associated biliary fibrosis. Null mutation of Prom1 is associated with decreased fibrosis and serum total bilirubin (TB) levels in a murine BA model. Moreover, murine cell lineage tracing indicate that CK19-expressing ductular reactive cells, which express profibrogenic INTEGRIN- $\alpha$ v $\beta$ 6, derive from Prom1-expressing precursors in biliary fibrosis.

**Objective:** We hypothesize PROM1 expression in BA infants at Kasai negatively correlates with successful surgical drainage (TB<2.0 mg/dL 3 months postop).

**Methods:** We analyzed prospectively collected clinical data, serum PROM1 levels by ELISA, and hepatic gene expression by microarray (Affymetrix) from 30 BA and 10 indeterminate cholestasis (control) infants enrolled in the Childhood Liver Disease Research Network (ChiLDReN). Unpaired t-test and correlation analyses were performed.

**Results:** Age at Kasai (mean 69d) and Ishak fibrosis score (2.0+/-0.5 vs 2.6+/-1.4) were not different between postop TB

**Conclusion:** PROM1 expression correlates with fibrosis genes and negatively correlates with successful drainage, consistent with a role in BA-associated biliary fibrosis.

8:20am-8:30am

Saturday, June 3, 2017

Presidential Session

## QUANTITATIVE COMPARISON OF LOW-DOSE AND HIGH-DOSE STEROIDS IN THE MANAGEMENT OF BRAIN-DEAD ORGAN DONORS

Aakash Amin; Andre Romain, MS; Vashaun Rodgers, BSN, RN, CPTC; Joey Boudreaux, BSN, RN, CPTC; Christina Thornton, RN, CPTC; Anil Paramesh, MD, FACS

Presenter: Aakash Amin

Tulane University School of Medicine, New Orleans, LA

**Background:** Steroids are administered to potential organ donors to alleviate the systemic inflammation that occurs upon brain death. Because steroids cause hyperglycemia with ensuing complications, a low-dose steroid regimen may be more valuable than the standard large dose methylprednisone. The potential benefits may be lower incidences of hyperglycemia and reduced insulin use; the potential risks may be diminished hemodynamic stability with consequential loss of procured organs.

**Objective:** Our objective in this study was to determine whether a low-dose steroid regimen (LD) could be as effective as a high-dose steroid regimen (HD) in maintaining the viability of organs in brain-dead donors. The end goal is to improve the management of organ donors at minimal cost.

**Methods:** Of the 288 organ donors whose data were used in this study, 60 were given a high-dose (HD) regimen of 15mg/kg methylprednisone and 228 were given a low-dose (LD) regimen of 300mg hydrocortisone. There were 37 additional donors but because they were diabetics, they were removed to maintain the independence of our test variable. The two groups were compared in terms of donor demographics; baseline, final, and change in PaO<sub>2</sub> values to assess pulmonary function; vasopressor dosage to assess cardiovascular function; peak and final blood glucose levels and total insulin use to assess glycemic control; and the number of organs procured to assess the ultimate outcome and overall efficacy of each steroid regimen.

**Results:** Prior to steroid administration, the two groups had significantly different ages (31.55 years HD vs. 38.85 years LD,  $P=.003$ ) but otherwise similar demographics (see Table 1). As expected, after steroid exposure the two groups differed significantly in terms of total steroid exposure (939.28 units HD vs. 581.14 units LD,  $P<.001$ ). Though the two groups had similar baseline PaO<sub>2</sub> (313.65 mmHg HD vs. 294.97 mmHg LD,  $P=.396$ ), they had significantly different final PaO<sub>2</sub> (296.98 mmHg HD vs. 333.93 mmHg LD,  $P=.047$ ). This change from baseline to final was significant only for the LD group (-16.67 mmHg HD,  $P=.465$ ; +38.96 mmHg LD,  $P=.001$ ). A greater but nonsignificant proportion of the HD group required low-dose vasopressors (95.0% HD vs. 89.5% LD,  $P=.401$ ). Peak glucose levels were significantly greater in the HD group (263.63 mg/dl HD vs. 229.11 mg/dl LD,  $P=.050$ ) while final glucose levels were nearly equal (195.45 mg/dl HD vs. 185.74 mg/dl LD,  $P=.502$ ). Finally, while total insulin requirements were significantly less in the LD group, (31.8 Units HD vs. 22.2 Units LD,  $P=.048$ ), there was no difference in average number of organs recovered (3.71 organs HD vs. 3.79 organs LD,  $P=.804$ ).

**Conclusion:** The LD regimen did not diminish organ stability and maintained the number of organs able to be procured. These findings coupled with the significant improvements in glycemic index achieved by the LD regimen indicate that a high-dose steroid regimen may not be as essential to donor management as previously thought.

8:30am-8:40am

Saturday, June 3, 2017

Presidential Session

## PROPHYLACTIC ANTIBIOTIC USE IN ELECTIVE LAPAROSCOPIC CHOLECYSTECTOMY

Griffen, F. D., Kim, J, Smith, J. P.

Presenter: Jennifer Kim MD

LSU Health Shreveport, Shreveport, LA

**Background:** During the 1960s through the 1980s, the era immediately before the common use of laparoscopic cholecystectomy (LC), surgical site infection (SSI) rates between 3% and 47% were reported for open biliary tract surgery. Data from a meta-analysis of 42 studies (4129 cases) showed that prophylactic antibiotics (PA) reduced infection rates by 9% (15% without and 6% with antibiotics). Since both the frequency and severity of infections with open cholecystectomy were compelling, these data weighed heavily in favor of PA.

As LC replaced open cholecystectomy from the late 1980s through the early 1990s, observers began to notice that infections were less frequent and less severe. Over time, several articles have shown that PA is probably not as beneficial for elective LC as it was for open biliary tract surgery. Paralleling the apparent loss of benefit, there is a newfound, heightened awareness of the complications of perioperative period including anaphylaxis, secondary infections like *C. difficile* colitis, and cost.

Some reports evaluating the use of PA for elective LC are prospectively randomized, but almost all are understandably under-powered, given the estimated number of cases required for the low incidence of variables being studied. All prior studies are helpful but most have deficiencies, especially in the areas of intention-to-treat analysis, exclusion of patients at high risk for SSI, and statistical power.

**Objective:** The objective is to fill the voids in global insight into the benefit of prophylactic antibiotics for laparoscopic cholecystectomy by developing a database with strict adherence to intention-to-treat analysis and with a series of cases large enough to reach a power of 0.8.

**Methods:** Between May 7, 2013 and March 11, 2015, no prophylactic antibiotics were given to patients selected for elective cholecystectomy by two surgeons at LSU Health Shreveport. The only patients excluded were those that received antibiotics prior to surgery for any reason; all others, including those at high risk for infection, were included. No patient selected was later taken out of protocol and no antibiotic was given to any patient unless an infection was documented. The incidence and severity of infections were compared to historical controls treated with prophylaxis by the same two surgeons at LSU Health Shreveport from November 6, 2011 to January 13, 2013. Student's t-test and Fischer's exact test were used to compare the data. A p value of less than 0.05 was considered statistically significant.

**Results:** There were 268 patients in the study group and 119 patients in the control group. Infection occurred in 2.9% in the study group compared to 0.9% in the controls. There was no statistical difference between groups ( $p = 0.19$ ; power = 0.80). All infections were mild except one. All outcomes were good.

**Conclusion:** The routine use of prophylactic antibiotics for elective laparoscopic cholecystectomy is not supported. The use of prophylaxis in specific patients should be individualized at the surgeons' discretion.

8:40am-8:50am

Saturday, June 3, 2017

Presidential Session

## **AN ANALYSIS OF FACTORS THAT PREDICT HOSPITAL READMISSION AFTER SURGERY FOR PERFORATED APPENDICITIS**

Jeffanne E Millien, MD, Michael Townsend, MD, Joshua Goldberg, MD, and George M. Fuhrman, MD

Presenter: Jeffanne Millien MD

Ochsner Clinic Foundation, New Orleans, LA

**Background:** As healthcare delivery costs increase, efforts at reduction in expenditures without impact on quality have led to a focus on preventing hospital readmissions. Medicare hospital readmission data rarely focuses exclusively on surgical patients. In order to best perform this analysis we searched for an operation that is typically performed by General Surgeons, is common enough to allow accumulated proficiency and has a well documented complication rate. Appendectomy for perforated appendicitis was chosen since it meets all of the previously stated criteria.

**Objective:** We performed this analysis of factors that predict hospital readmission after appendectomy for perforated appendicitis to determine whether readmission might be predicted. Also, we hoped to determine a strategy that might help reduce the need for readmission by analyzing the treatment details during the second hospital stay.

**Methods:** We identified all patients undergoing surgery for appendicitis over the most recent five-year period. We excluded all patients with non-perforated appendicitis and all patients under 18 years of age. We defined perforated appendicitis based on the description in the operative dictation and did not rely exclusively on the pathology report. We recorded all demographic data, length of symptoms prior to the original hospital admission as well length of stay, vital signs on admit, laboratory findings, surgical approach, length of surgery, labs prior to discharge, time to readmission if necessary, length of readmission, and intervention required after readmission. We divided the cohort into two groups depending on whether the patient was readmitted. We used chi square analysis and student's t test as appropriate to determine differences between the two groups.

**Results:** A total of 460 patients were identified, but once non-perforated cases and patients under 18 were excluded a total of 86 were left for analysis, with 14 (16.3%) requiring readmission. The only factors analyzed that predicted readmission were longer original appendectomy surgery ( $p=0.03$ ) and open surgery ( $p=0.04$ ). After readmission, only one patient required re-operation and two required percutaneous abscess drainage. The remaining 11 patients were admitted for a median of two days, received intravenous fluids, and required no additional clinically significant management.

**Conclusion:** Patients requiring longer and open surgery are at an increased risk for hospital readmission after resection of a perforated appendix. Efforts to reduce readmission will likely be most successful if hydration and brief periods of clinical observation can be arranged when necessary for patients after discharge from surgery.

8:50am-9:00am

Saturday, June 3, 2017

Presidential Session

## **ROLE OF LOCAL EXCISION FOR BENIGN AND MALIGNANT AMPULLARY AND PERI-AMPULLARY LESIONS**

Shokouh-Amiri H, Ahmadzadeh S, Chu Q, Jaganmohan S, Durci M, Veluvolu A, Wellman G, Marsala A, Zibari G

Presenter: Sana Bader, MD

Willis Knighton Medical Center, Shreveport, LA

**Background:** Malignant ampullary lesions are treated by Whipple operations. when the lesion is small, local resection can be appealing. This approach is underutilized, hence reporting our experience.

**Objective:** To evaluate surgical and oncological outcomes as well as long term results of patients who had local resection versus whipple procedure for ampullary and peri-ampullary lesions at our center.

**Methods:** Patients with ampullary and peri-ampullary pathology who were managed by local resection (n=35) and Whipple (n=30) between 2000 – 2017 were analyzed retrospectively with IRB approval. morbidity, mortality, hospital stay and survival were studied.

**Results:** A total of 532 patients with pancreatic pathology were managed in this time period, sixty-five of them had ampullary and peri-ampullary pathology. Thirty-seven had malignant and 28 benign pathology. Thirty Whipple (Twenty- two ampullary adenocarcinoma, one duodenal adenocarcinoma and 7 benign lesions) and 35 local resections (7 ampullary adenocarcinoma (1 converted to Whipple due to R1), 4 duodenal adenocarcinoma, 4 neuroendocrine tumor( 2 benign and 2 malignant), 1 metastasis and 19 other benign lesions) were performed. Length of hospital stay (14.86 +5.67 vs 9.57 + 6.11 days, P=0.03), estimated blood loss (439.77 + 287.29 vs 124.59 + 85 ml, P=0.001) and duration of surgery (303.18 + 61.59 vs 158.63 + 47.01 min, P=0.001) were statistically significant in favor of local resections. There were only 2 peri-operative mortality in Whipple group versus no peri-operative mortality in local resection group(P=0.25). 26.7% of patients with Whipple vs 17.1% of patient with local resection had peri-operative morbidity (clavien-Dindo) (P=0.25). There was no significant difference in median survival time of malignant patients who underwent local resection versus whipple procedure.( 38 vs 35 months, P=0.114)

**Conclusion:** Considering small size of cohort, local resection for malignant ampullary and peri-ampullary lesions is safe with good long term results provided R0 resection is obtained.

9:00am-9:10am

Saturday, June 3, 2017

Presidential Session

### **SELECTIVE VS NONSELECTIVE EMBOLIZATION VS NO EMBOLIZATION IN PELVIC TRAUMA: A MULTICENTER RETROSPECTIVE COHORT STUDY**

Aimee Hymel MD, Sabrina Asturias MD, Frank Zhao MD, Ryan Bliss MD, Thea Moran MD, Richard H. Marshall MD, Elizabeth Benjamin MD, PhD, Herb A. Phelan MD, MSCS, Peter C. Krause MD, Geoffrey S Marecek MD, Claudia Leonardi PhD, Lance Stuke MD, John P. Hunt MD, MPH, Jennifer L Mooney MD

Presenter: Aimee Hymel MD

LSU Health New Orleans, New Orleans, LA

**Background:** The treatment of hemorrhage from pelvic fractures poses a significant challenge with a reported mortality of 8.8-35.5%. Angioembolization has become the standard of care but is limited to arterial sources of bleeding. Optimal treatment for pelvic fracture-associated hemorrhage is undefined in two clinical scenarios. The first is in the presence of a negative angiogram. Theoretically, arterial embolization can treat venous bleeding by decreasing the arterial pressure head. The second scenario is in angiograms that are positive and whether non-selective embolization (NSE) vs selective embolization (SE) is appropriate.

**Objective:** The purpose of this study is twofold. We sought to determine if embolization of patients with a negative angiogram would aid in hemorrhage control. Furthermore when the angiogram is positive, which level of embolization, NSE or SE, is superior?

**Methods:** A multicenter retrospective review was conducted involving three level one urban trauma centers. The study population included blunt trauma patients with pelvic fractures who underwent angiography from January 2002 to December 2014. Demographic and clinical data was compiled on all subjects. NSE refers to an intervention at the level of the internal iliac artery and SE is defined as any intervention distal to the main internal iliac artery. Theoretical complications of pelvic embolization are those thought to arise from decreased pelvic blood flow. Data on these complications were collected and will be referred to as embolization related complications. Thromboembolic complications included deep vein thrombosis or pulmonary embolism.

**Results:** One hundred and ninety-four patients met inclusion criteria. Of the 67 (34.5%) patients with a negative angiogram, 26 (38.8%) were embolized and 41 (61.2%) were not. There was no significant difference in the need for blood transfusions between the two groups (72.5% vs 84.6%,  $p=0.261$ ). However; if transfusion was necessary, the units given in the first 24 hours was significantly decreased in the embolization group (7.5 vs 4.0,  $p=0.054$ ). Embolization related complications occurred with higher frequency in those not embolized (11.4% vs 6.0%,  $p=0.414$ ).

One hundred and forty five patients (74.7% of total study population) were embolized. Ninety-nine (68.3%) were a NSE and 46 (31.7%) were a SE. There were no significant differences in mortality, hospital or ICU length of stay, the need for or amount of transfusions. Inpatient complications occurred more frequently in the NSE group (51.8% vs 27.1%,  $p=0.025$ ); however, there was no difference in the rate of embolization related complications (4.1% vs 2.1%,  $p=0.352$ ). There was a significantly increased rate of thromboembolic complications in the NSE group (12.1% vs 0,  $p=0.010$ ).

**Conclusion:** Embolization in the face of a negative angiogram may aid in hemorrhage control for those patients being actively transfused. If the patient does not require blood product resuscitation, than embolization is of no additional benefit. Should initial angiogram be positive then selective occlusion of more distal vessels rather than of the main internal iliac artery should be performed due to the increased complications and thromboembolic events associated with NSE.

9:55am-10:05am

Saturday, June 3, 2017

Surgical Oncology Session

## FACTORS THAT PREDICT BIOLOGICAL AGGRESSIVENESS IN ESTROGEN RECEPTOR-POSITIVE, HUMAN EPIDERMAL GROWTH FACTOR RECEPTOR 2-NEGATIVE, LYMPH NODE-NEGATIVE BREAST CANCER

Arthur LE, Slattery LN, Fuhrman GM, Mackey AM, Rivere AE, Corsetti RL

Presenter: Lauren Arthur MD

Ochsner Clinic Foundation, New Orleans, LA

**Background:** Traditionally breast cancer is staged using TNM criteria, which is based on tumor size, nodal status, and evidence of distant metastasis. Oncotype DX assay is not used for staging but is increasingly used to determine need for chemotherapy. Oncotype DX assay uses genomics to predict the likelihood of distant recurrence in estrogen receptor (ER)-positive, human epidermal growth factor receptor (HER)2-negative disease.

**Objective:** This study uses Oncotype DX Recurrence Score (RS) to determine if there is a correlation between tumor size, progesterone receptor (PR) status, or age and biological aggressiveness of the tumor.

**Methods:** This is a retrospective review of breast cancer patients at Ochsner Clinic between 2007 and 2017 with Oncotype DX RS and ER-positive, HER2-negative, lymph node-negative tumors. Tumor size is reported as pathological size in mm and ER and PR receptor status is as reported from Oncotype DX assay. Tumor size was compared to RS in two groups, ER+/PR+/HER2- and ER+/PR-/HER2-.

**Results:** The data set includes 296 tumors, 248 are ER+/PR+/HER2- and 48 are ER+/PR-/HER2-. RS ranges from 0 to 66, age ranges from 33 to 77 years, and tumor size ranges from 1 to 65 mm. For our comparison of age and RS no significant correlation was found ( $r=-0.073$ ,  $p=0.208$ ). (Figure 1) PR-negative tumors were found to have a statistically significantly higher RS regardless of size (PR- mean RS=30.8+/-12.7, PR+ mean RS=16.3+/-7.3,  $t(53)=7.6$ ,  $p<0.0001$ ). Our comparison of tumor size versus RS was performed for the entire data set and for the two subgroups. Overall there was no significant correlation between tumor size and RS ( $r=0.028$ ,  $p=0.635$ ) and this remained true for the PR-positive subgroup ( $r=0.114$ ,  $p=0.072$ ). However, in the PR-negative subgroup there was a significant negative correlation between tumor size and RS ( $r=-0.343$ ,  $p=0.017$ ) meaning smaller tumors were associated with a higher RS. (Figure 2) Further analysis was performed on this group to assure differences in grade were not to account for this correlation. We found equal distribution of low, intermediate, and high grade tumors throughout the different tumor sizes.

**Conclusion:** Increasing tumor size may not be associated with increasing biological aggressiveness. Traditionally T1a and T1b tumors are felt to be of lower risk based upon T size alone, but they may warrant genomic analysis to assess a more accurate risk of distant recurrence. Therefore, all tumors meeting the ER-positive, HER2-negative criteria, regardless of size, should be considered for genotyping. In the PR-negative subgroup there may be a negative correlation between tumor size and biological aggressiveness, which supports the suggestion to genotype all PR-negative tumors regardless of size. The significantly higher RS in PR-negative tumors demonstrates PR-negative receptor status as a predictor for higher risk of distant recurrence. We found that age may be not associated with biological aggressiveness and

therefore tumors in women of any age should be treated with similar concern for aggressiveness.

10:05am-10:15am

Saturday, June 3, 2017

Surgical Oncology Session

## CLINICAL IMPACT OF SHAVE BIOPSY ON SURGICAL MANAGEMENT OF CUTANEOUS MELANOMA

Principal Author/Presenter--Nguyen, N.

Co-author--Lyons, J.

Presenter: Ngan Nguyen, MD

LSUHSC-New Orleans, Dept. of Surgery, New Orleans, LA

Our Lady of the Lake Regional Medical Center, Baton Rouge, LA

**Background:** Traditional surgical teaching has held that pigmented macules require sampling via incisional or punch biopsy rather than a shave biopsy. However, shave biopsies are still routinely performed on such lesions.

**Objective:** We aimed to determine the ability of the shave biopsy to predict final Breslow's depth in cutaneous melanomas.

**Methods:** We reviewed records of all melanoma patients who had undergone a preoperative shave biopsy and were subsequently referred to surgical oncology at our institution for definitive surgical management between 2012-16.

**Results:** 106 melanoma patients were identified- 91 (86%) had shave biopsies performed by 21 separate referring dermatologists. 47 lesions were thin; 43 lesions were intermediate thickness. Lesions were located in the head and neck (19%), trunk (31%), and extremity (50%). Following surgical excision, residual melanoma was only seen in 21% of specimens. 11 patients (10%) had greater Breslow's depth on surgical pathology, but only 3 (3%) required additional surgical procedures as a result of this. Only 1 patient with conversion from early stage (I, II) to intermediate (III) stage was identified.

**Conclusion:** In our experience, preoperative shave biopsies adequately reflect the final melanoma T stage in over 95% of cases and can safely be used to determine definitive surgical planning.

10:15am-10:25am

Saturday, June 3, 2017

Surgical Oncology Session

## IMPACT OF HASHIMOTO'S THYROIDITIS ON LYMPH NODE YIELD AND LYMPH NODE RATIO IN THYROID CANCER

Mohsin K1; Murcy M1; Mohamed H1; Hassoon T1; Al-Qurayshi Z2; Monlezun D3; Kandil E1  
1Division of Endocrine and Oncological Surgery, Tulane University School of Medicine, New Orleans, United States

2Department of Otolaryngology–Head & Neck Surgery, University of Iowa Hospitals and Clinics, Iowa City, United States

3Department of Global Health Management & Policy, Tulane University School of Public Health and Tropical Medicine, New Orleans, United States

Presenter: Khuzema Mohsin MD

Tulane University School of Medicine, New Orelans, LA

**Background:** Background: A number of studies have reported the association between thyroid cancer (TC) and Hashimoto's thyroiditis (HT). However, the impact of HT on the number of dissected lymph nodes in each surgery, referred to as lymph node yield (LNY), or the proportion of these dissected lymph nodes with malignant pathology, referred to as lymph node ratio (LNR), remains uncertain.

**Objective:** We aim to evaluate the correlation between HT and the resulting LNY and LNR.

**Methods:** A retrospective study for all patients who underwent thyroid surgery at a single U.S. institution over a 9-year period. Patients were divided according to the occurrence of HT into 2 groups: HT and non-HT patients. Patients were evaluated for demographic data, presence of malignancy, histological type of malignancy, size of the tumor, presence of multi-focal disease, existence of lymph node metastasis, LNY, LNR and BRAF gene mutation status.

**Results:** A total of 1635 patients were included, HT was diagnosed in 349(34%) of them. Patients with HT were more likely to have TC [141 (40.87%)] than Non-HT patients [352 (27.63%),  $p < 0.001$ ]. However, HT patients were less likely to have metastatic lymph nodes [14 (20.29%)] than non-HT patients [72 (45.28%),  $< 0.001$ ]. HT patients also had lower LNR [12.40 (21.13)] than non-HT patients [30.59 (34.17),  $p = 0.004$ ]. No difference in LNY was found between HT and non-HT patients ( $p = 0.296$ ). Tumor size, presence of multifocal disease, and BRAF status were similar between both groups.

**Conclusion:** Although HT is associated with higher rates of TC, the co-existence of HT with TC is linked with less metastasis than non-HT with TC. Future multi-institutional studies are warranted.

10:25am-10:35am

Saturday, June 3, 2017

Surgical Oncology Session

## PERIOPERATIVE COMPLICATIONS DIFFER BETWEEN PATIENTS WHO UNDERWENT NEOADJUVANT CHEMORADIATION THERAPY VERSUS UP-FRONT PANCREATICOUDENECTOMY

Quyem Chu, Conner McDaniel, Tze-Woei Tan, Wayne Zhang, Denis Rybin, Gheorghe Doros

Presenter: Conner McDaniel MD

LSU Health Shreveport, Shreveport, LA

**Background:** Neoadjuvant therapy yields similar outcomes as adjuvant therapy for patients who had pancreaticoduodenectomy (Whipple) for pancreatic adenocarcinoma. However, the pattern of perioperative complications between the two modalities is not well understood. We compared the outcomes of patients undergoing Whipple procedure who received neoadjuvant chemoradiation therapy (chemoXRT) versus up-front surgery for patients with pancreatic adenocarcinoma.

**Objective:** Our objective is to identify perioperative complications related to neoadjuvant chemoradiation in those undergoing pancreaticoduodenectomy for pancreatic adenocarcinoma.

**Methods:** Using the National Surgical Quality Improvement Program dataset (2005-2012), we identified pancreaticoduodenectomies and divided patients into two cohorts based on whether they received neoadjuvant chemoXRT. Perioperative mortality and morbidity was measured. Multivariable logistic regression was used to examine association between neoadjuvant chemoXRT and perioperative outcomes.

**Results:** Of the 10,217 patients who underwent a Whipple procedure, 488 patients (5%) underwent neoadjuvant chemoXRT. The neoadjuvant group had significantly higher proportion of <10% weight lost prior to surgery (26% vs. 18%,  $p<.001$ ), chronic steroid therapy (3% vs. 2%,  $p=.03$ ), and longer operative time ( $443\pm140$  vs.  $373\pm128$  minutes,  $p<.001$ ). Although perioperative survival was similar between the two cohorts, the neoadjuvant group had significantly higher risk of surgical site infection (SSI) (14% vs. 10%,  $p=.002$ ), thromboembolism (5% vs. 3%,  $p=.03$ ) but lower risk of pneumonia (3% vs. 5%,  $p=.10$ ). In multivariable analysis, neoadjuvant therapy was associated with increased risk of SSI (OR 1.4, 95% CI 1, 1.8,  $p=.02$ ), but lower risk of pneumonia (OR 0.5, 95% CI 0.3, 0.8,  $p=.007$ ).

**Conclusion:** Neoadjuvant chemoXRT is associated with an increased risk of SSI for patients undergoing Whipple procedure.

11:05am-11:10am  
Saturday, June 3, 2017  
Video Session

## **ROBOT-ASSISTED LAPAROSCOPIC RETROPERITONEAL ADRENALECTOMY**

Fadi Murad, Khuzema Mohsin, Hassan Alzahrani, Sang-Wook Kang, Emad Kandil

Presenter: Fadi Murad MD

Tulane School of Medicine, New Orleans, LA

**Background:** Robot-assisted laparoscopic retroperitoneal approach is becoming a favorable technique for minimally invasive surgeons performing adrenal surgeries. It provides a shorter hospital stay, shorter operative time and morbidity and less morbidity than other approaches.

**Objective:** The objective of this video is to illustrate the steps of Left adrenalectomy via the Robot-assisted laparoscopic retroperitoneal approach.

**Methods:** The video demonstrates the patient positioning, the location of the incisions and the ports, the initial laparoscopic dissection followed by the robot docking and the robotic dissection.

**Results:** The patient was discharged on the same day of surgery with an uneventful postoperative course. Pathological diagnosis was adrenal cortical adenoma.

**Conclusion:** Robot-assisted laparoscopic retroperitoneal adrenalectomy is a feasible and safe technique, and provides better outcomes compared to other adrenalectomy approaches. .

11:10am-11:16am

Saturday, June 3, 2017

Video Session

## **ROBOTIC TRANSAXILLARY PARATHYROIDECTOMY AND THYMECTOMY IN MULTIPLE ENDOCRINE NEOPLASIA-1**

Mohsin K1; Alzahrani H1; Sang-Wook K1; Kandil E1

1Division of Endocrine and Oncological Surgery, Tulane University School of Medicine, New Orleans, United States

Presenter: Khuzema Mohsin MD

Tulane University School of Medicine, New Orleans, LA

**Background:** Robotic neck surgery has been increasingly used throughout multiple institutions in recent years as an alternative surgical approach to open and endoscopic surgery. Transaxillary robotic surgery is one of the preferred approaches for robotic neck surgery of the thyroid and parathyroid glands due to a hidden axillary incision and patient satisfaction. Contralateral gland excision using the robotic transaxillary approach is a maneuver of high difficulty, and requires high-volume surgeon experience with robotic technology and neck surgery.

**Objective:** To successfully perform parathyroidectomy and thymectomy using a robotic transaxillary approach.

**Methods:** Robotic transaxillary subtotal parathyroidectomy and thymectomy in a MEN-1 twenty year old female patient with primary hyperparathyroidism and extensive family history of MEN syndrome and malignancies.

The procedure was performed with ICG imaging, gamma probe use, and intraoperative nerve monitoring. Two surgeons each operated at individual robotic surgical consoles during the procedure.

**Results:** Intraoperative PTH level drop from 149.7 to 52.5 confirming satisfactory completion of procedure. No complications were seen, incision was hidden in axillae, and patient was in stable condition. Bilateral vocal cords were intact and mobile on flexible laryngoscopy.

**Conclusion:** We have successfully performed one of the first documented procedures of robotic transaxillary subtotal parathyroidectomy and thymectomy in a MEN-1 patient. Experienced surgeons performing similar operations in selected patients is possible.

1:00pm-1:10pm

Saturday, June 3, 2017

Surgical Potpourri

## **TOO LITTLE TOO LATE: EMPIRIC VANCOMYCIN THERAPY IS INEFFECTIVE IN TRAUMA ICU PATIENTS**

Sara Al-Dahir, Rachel Pastorek, D Olivier, Obinna Oko, Sobia Arshad, Johlee Schinetsky, Hieu Nguyen, Jennifer Mooney and Patrick Greiffenstein

Presenter: Sara AlDahir

Xavier University of Louisiana, New Orleans, LA

**Background:** Critically-ill trauma patients have an increased susceptibility to developing secondary infections. Empiric antibiotic therapy is often necessary in this patient population and Vancomycin (Vanc) is frequently used as a first line agent to cover methicillin-resistant staphylococcus aureus (MRSA). Achieving therapeutic levels rapidly is essential in critical illness and may be particularly challenging in this patient population.

**Objective:** We sought to determine how effectively therapeutic levels were reached in our Trauma Intensive Care Unit (TICU) patients and what factors influenced failure to reach them.

**Methods:** We conducted an IRB-approved, retrospective chart review of trauma patients in the ICU treated empirically with Vanc between December 2013 and December 2014. We collected demographic and clinical data including dosage and plasma levels of Vanc and calculated trough levels and rates of elimination. Trough levels of 15-20 mcg/dL were considered therapeutic.

**Results:** We identified 122 TICU patients of which 115 had Vanc levels within 48 hours of initial dose. Vanc levels were subtherapeutic in 82% and supratherapeutic in 3% of subjects at 48 hours after dosing. After 72 hours, only 24% of patients had reached therapeutic levels and ultimately 59% of our cohort failed to reach therapeutic levels. Failure to reach therapeutic levels at 48 hours was associated with young age and there was no association with volume of fluid received, blood product transfusion volume, injury severity, or total daily dose received (Table). Furthermore, we found that rates of drug elimination were widely variable for many subjects all of which suggests that treatment failure is related to drug metabolism.

**Conclusion:** Therapeutic Vanc levels are infrequently reached in our critically-injured patients. This appears to be particularly challenging in younger patients at least in part due to variable pharmacokinetics within this patient population. Our study calls into question the effectiveness of Vancomycin as an empiric or first-line treatment for MRSA in critically ill trauma patients.

1:10pm-1:20pm  
Saturday, June 3, 2017  
Surgical Potpourri

## **ANTERIOR VS. LATERAL APPROACH FOR TRANSCUTANEOUS LARYNGEAL ULTRASONOGRAPHY IN ASSESSING VOCAL CORD FUNCTION: WHICH APPROACH IS BETTER?**

Principal Author: Kandil E

Presenter: Ahmed T

Co-Authors: Kholmatov RM, Bu Ali D, Murad F, Killackey MT

Presenter: Tamer Ahmed MD

Tulane University School of Medicine, New Orleans, LA

**Background:** Transcutaneous laryngeal ultrasonography (TLUS) is a noninvasive technique to examine vocal cord (VC) function. Traditionally it has been done via the anterior approach, which has limitations in men with a prominent larynx and in older patients with calcified thyroid cartilage. TLUS using the lateral approach was recently suggested as a better approach than the anterior approach in VC assessment. To our knowledge, there are no studies that compare these two modalities.

**Objective:** To investigate the efficacy of the lateral approach compared to the anterior approach for VC assessment.

**Methods:** A retrospective study from October 2015 to December 2016 at a North American, university-based tertiary care center. All patients who underwent perioperative assessment of VC movements by TLUS using both the lateral and anterior approaches were included. VC function was also evaluated by gold standard - flexible fiber optic laryngoscopy (FFL). Patients who did not have both TLUS and FFL were excluded. A total of 321 patients were included. Based on BMI, patients were divided into a normal weight group (BMI 18.5-24.9) and an overweight-obese group (BMI $\geq$ 25). Based on age, patients were categorized as younger (age $\leq$ 45) and older (age $>$ 45). Digitally saved video records of FFL and TLUS were reviewed, and VC movements were defined as normal, weak or paralysis. The findings of anterior and lateral approach TLUS were compared in correlation to FFL results based on patients' BMI, age and gender. The sensitivity, specificity, positive and negative predictive values (PPV and NPV), accuracy, and tests of equality for receiver operating curve (ROC) areas were calculated for both the anterior and lateral approaches.

**Results:** A total of 321 patients (642 vocal cords) underwent assessments. The mean age was 50  $\pm$  25 years, and 269 (83.8%) patients were women. Fourteen patients (4.4%) had unilateral VC paralysis confirmed by FFL. The visualization rate of VC was significantly higher by the lateral approach than by the anterior approach (82.09% vs. 55.14%;  $p < 0.001$ ). Visualization rate of VC was higher in women, young and normal weight patients ( $p < 0.001$ ). The overall sensitivity, specificity, PPV, NPV, and accuracy in detecting paralyzed VC were 66.7%, 99.4%, 66.7%, 99.4%, and 97.7%, respectively, for the anterior approach TLUS and 55.6%, 100.0%, 100.0%, 99.2%, and 98.2%, respectively, for the lateral approach TLUS.

**Conclusion:** TLUS using the lateral approach provides better visualization of VC compared with the anterior approach in any patient regardless age, gender and BMI. However, FFL remains the gold standard for VC assessment due to low sensitivity of both the lateral and anterior approaches in the assessment of paralyzed VC.

1:20pm-1:30pm  
Saturday, June 3, 2017  
Surgical Potpourri

**EVOLUTION OF NEOADJUVANT THERAPY IN BORDERLINE RESECTABLE PANCREATIC CANCER: SURGICAL AND LONG-TERM OUTCOMES IN A SINGLE INSTITUTION**

Bolton NM, Maerz A, Conway WC, Bolton JS  
Presenter: Nathan Bolton MD  
Ochsner Clinic Foundation, New Orleans, LA

**Background:** Neoadjuvant therapy (NT) regimens for borderline resectable pancreatic cancer (BRPC) have evolved to include multi-agent FOLFIRINOX/FOLFOX followed by 5FU and radiation.

**Objective:** We report our experience and compare outcomes of initially resectable pancreatic cancer (IRPC) vs BRPC receiving NT.

**Methods:** We retrospectively collected data on patients who underwent pancreaticoduodenectomy between January 2008 and October 2015. Demographics, surgical parameters, pathology, NT regimens, and surgical outcomes were compared between patients classified as either IRPC or BRPC according to the AHPBA/SSO/SSAT consensus definition. Further analysis was done comparing older gemcitabine chemotherapy regimens with newer multi-agent based treatments, pre-and post- neoadjuvant CA 19-9 serum measurements, and histologic response to neoadjuvant therapy on pathologic examination of resected specimens.

**Results:** A total of 195 patient records were included in our analysis comprising of 133 IRPC and 62 BRPC cases. The IRPC patients were older (67.6 vs 62.9,  $p=0.003$ ), had fewer females (43% vs 60%,  $p=0.03$ ), had a higher pre-operative BMI (27.7 vs 25.4,  $p=0.009$ ) and lower albumin (3.14 vs 3.40,  $p=0.04$ ). While IRPC operations were shorter (449 min vs 520 min,  $p=0.003$ ), had less blood loss (663 ml vs 954 ml,  $p=0.002$ ) and were less likely to include vascular resection (29% vs 76%,  $p=0.002$ ) the rate of R0 resection was identical (82% for both,  $p=1$ ) and the IRPC group had higher node-positive ratio (19.3% vs 7.2%  $p4$  cycles of multi-agent pre-operative chemotherapy was ( $p=0.001$ ).

**Conclusion:** While the effects of chemo- and radiotherapy in these BRPC tumors lead to more technically challenging surgeries in terms of blood loss and operative time, they have similar rates of R0 resection, perioperative outcomes and short-term survival.

1:30pm-1:40pm

Saturday, June 3, 2017

Surgical Potpourri

## **MAJOR PANCREAS RESECTION FOR ADENOCARCINOMA IN THE ELDERLY PATIENTS; DOES AGE IMPACT THE OUTCOME?**

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1- Department of Surgery, Louisiana State University Health-Shreveport, Shreveport, LA.

2- John C. McDonald Regional Transplant Center, Willis Knighton Health System, Shreveport, LA.

3- Department of Pathology, Willis Knighton Medical Center, Shreveport, LA.

4- Department of Medicine and Feist-Weiller Cancer Center, Louisiana State University Health-Shreveport, Shreveport, LA.

Presenter: Alireza Hamidian Jahromi MD

LSU Health Shreveport, Shreveport, LA

**Background:** The current aging in the general population will ultimately result in an increase in incidence of cancers like pancreatic adenocarcinoma which are more common in the elderly. While major pancreatic resection is considered as a high-risk procedure, evaluating the survival benefit in the elder population undergoing curative resection (CR) is gaining increasing relevance.

**Objective:** To evaluate the safety and survival benefit of CR of borderline resectable pancreatic adenocarcinoma in the elderly patients (>70 years age) compared to a younger group of patients.

**Methods:** In this IRB approved retrospective cohort study, patients who had pancreatic surgery (N=274) between 1998-2012 were reviewed. Patient's outcome and survival were compared between seventy patients (age =70 years) (group-II) (N=27). Demographics, tumor marker levels, operative and follow-up data were reviewed.

**Results:** Type of the operations were: Standard Whipple (N=53), pylorus-sparing-Whipple (N=41), total pancreatectomy (N=3). The tumor grades were: 1(5.2%), 2(54.2%), 3(37.5%), and 4(3.1%). The stages were: 1A(5.2%), 1B(8.2%), IIA(24.7%), IIB(48.5%), III(11.3%), and IV(2.1%). Stages IIB-IV had a significantly lower median overall survival (OS) than stages I-IIA (12.7 vs. 18.7 month) ( $p=0.007$ ). The median OS of the patients with peri-pancreatic soft tissue involvement (PST)(+) was lower than the PST (-) patients (11.9 vs. 53.8 months) ( $P0.05$  for both). Tumor characteristics including the tumor size, margin status, and LN, vascular and PST involvement, tumor stage and grades, tumor marker levels were not different between the groups ( $P>0.05$  for all). Cox regression analysis demonstrated that while grade (Hazard Ratio=2.7), peri-pancreatic soft tissue involvement (PST) (Hazard Ratio=2.3), margin status (Hazard Ratio=1.9) were independent predictor of mortality ( $P0.05$ ).

**Conclusion:** While pancreatic major resection in the elderly patients seems to be feasible and safe and is not associated with significant risk of intra-operative and post-operative complications; the survival of the elderly patients undergoing pancreatic adenocarcinoma is poor. Age is not an independent predictor of outcome in the elderly patient with pancreatic adenocarcinoma.

1:40pm-1:50pm  
Saturday, June 3, 2017  
Surgical Potpourri

## **AN NOVEL APPROACH TO TEST CHEMOTHERAPEUTIC DRUG USING ORTHOTOPIC MOUSE MODEL FOR PANCREATIC CARCINOMA**

Ryan Sherry, Xin Zhang, Mae Lindner, Sarah Cohen, Michelle Ponder, Carlos Farina, Li Li, William Conway

Presenter: Ryan Sherry BS

Ochsner Institute of Translation Research, New Orleans, LA

**Background:** Pancreatic adenocarcinoma (PAC) is the fourth leading cause of cancer related death, with a five-year survival rate of less than 7% and a one year survival rate of 20%. This is primarily due to the fact that upon diagnosis, metastatic malignancies are already proliferated, making it increasingly difficult to treat. Common treatments for early stage PAC include a combination of resection of primary tumor and chemotherapy, while later stages mostly rely solely on chemotherapy regimens. Here, we used an orthotopic xenograft mouse model to recapitulate the tumor microenvironment and test the effect of the chemotherapeutic drug Gemcitabine on PAC.

**Objective:** The study of orthotopic xenograft models will allow us to create a patient derived model, and investigate the novel combination of chemotherapy and cellular inhibitive drugs to increase efficacy of treatment.

**Methods:** The Luciferase tagged PAC cell lines PANC-1 and PAC patient specimen PaCa9 were orthotopic injected intra-pancreas in NOD/SCID mice in the absence or presence of lymph node stromal cells (HK Cells). Bioluminescent imaging (BLI) was carried on weekly to observe tumor growth and the spread of metastasis. At week 7, gemcitabine (GEM) were given intraperitoneally twice a week at dosages of 100mg/kg to the mice injected with PANC-1 and HK cells previously. At the endpoint, primary tumors were weighed. Primary tumor and metastasis of liver and lungs were all evaluated via BLI, H&E and immunohistochemistry (IHC) staining.

**Results:** Our orthotopic xenograft model of PANC-1 was able to recapitulate the histological structure of PAC comparing to the original patient tumor specimen PaCa9 in H&E staining. Additionally, IHC stainings showed similarities in biomarkers staining for Vimentin and Pan-cytokeratin between tumors from PANC-1 and the patient PaCa9. The addition of LNSCs significantly supports the PANC-1 and PaCa9 tumor progression and metastasis. Mice treated with 100 mg/kg gemcitabine had significantly decreased primary tumor weight and liver metastasis.

**Conclusion:** The successful development of an in vivo orthotopic xenograft model with similar histological architecture and biomarker staining leads to the opportunity for patient derived models in the future. In drug dosing, the significance of decreased tumor size with 100mg/kg gemcitabine was similar to results reported in clinical observations. The ability to successfully apply GEM in our in vivo model allows for testing the new drug combination regimes, and individualized therapeutic approaches for future study of PAC.

1:50pm-2:00pm  
Saturday, June 3, 2017  
Surgical Potpourri

## RESIDENT DUTY HOURS AND AMERICAN BOARD OF SURGERY IN-TRAINING EXAMINATION PERFORMANCE

DH Ballard

GP Pennington II

QD Chu

NS Samra

Presenter: G. Patton Pennington II MD  
LSU Health Shreveport, Shreveport, LA

**Background:** The American Board of Surgery In-Training Examination (ABSITE) is an exam administered annually in late January to all residents in Accreditation Council for Graduate Medical Education-accredited general surgery residency programs. Since the implementation of the 80-hour workweek, several reports have queried resident performance on the ABSITE. Previous studies compared ABSITE scores before and after the implementation of duty hour limits with mixed results. Some report significantly higher ABSITE performance after duty hour limit implementation at single institutions, while others report no difference. There have been few reported studies comparing duty hours preceding testing and ABSITE performance, and none that query the months preceding January.

**Objective:** The purpose of the study was to determine whether a relationship exists between the number of duty hours logged preceding the ABSITE and testing performance.

**Methods:** This was an Institutional Review Board approved retrospective study that compared the number of duty hours to ABSITE performance at a single General Surgery residency program from 2014 to 2016. Data were compiled and analyzed for number of duty hours logged from three months preceding the ABSITE, November to January, and the month of January alone. Inclusion criteria included categorical residents who logged at least one ABSITE score in the three-year study period. Two separate analyses compared ABSITE scores with the number of logged duty hours:

- i) all data points for the three-year study period (including multiple scores of the same resident)
- ii) one randomly selected year for residents with more than one ABSITE score.

Years were selected using a random number generator in Microsoft Excel. Descriptive statistics were used to summarize the data. Inferential analyses were conducted using Pearson correlation coefficient and Student's t-test. Statistical significance set at  $p < 0.05$ .

**Results:** There was complete data on 30 residents with 63 ABSITE scores. Mean hours/week for November through January were 59.1 compared to 60.6 for January alone ( $p=0.26$ ). The median ABSITE percentile was 50th percentile. When using all 63 data points, there was no significant correlation with duty hours 3 months preceding the ABSITE and test performance ( $r=0.05$ ,  $p=0.67$ ). Similarly, no significant correlation was found for January alone ( $r=-0.07$ ,  $p=0.58$ ). When using one randomly selected year/resident, there was no significant difference in number of duty hours logged for those scoring below or greater than the 50th percentiles for November to January or January alone (58.1 vs. 55.7 hours/week,  $p=0.27$  and 61.4 vs. 56.0 hours/week,  $p=0.067$ ).

**Conclusion:** We found no significant difference or correlation in ABSITE performance and number of reported duty hours. Although previous studies have compared periods before and after the implementation of the 80-hour work week, the current study provides data on number of duty hours logged in the three months preceding and the month of the ABSITE (January). In the present study, residents who scored below the 50th percentile worked a mean 56.0 hours/week compared to 61.4 hours/week those who scored above, although this did not reach statistical significance ( $p=0.067$ ).

2:45pm-2:50pm  
Saturday, June 3, 2017  
Mini-Talk Session I

**SURGICAL SITE INFECTION RATES IN A DISPROPORTIONATE SHARE HOSPITAL (DSH) QUALITY IMPROVEMENT PROJECT FOR COLON AND RECTAL RESECTIONS IN BENIGN AND MALIGNANT DISEASE: ARE THE RISK FACTORS DIFFERENT?**

Zachariah Weilenman, Elyse Bevier-Rawls MD, Cameron T Cocker MD, Patrick Greiffenstein MD and Guy R Orangio MD

Presenter: Elyse Bevier-Rawls MD

LSU Health New Orleans, New Orleans, LA

**Background:** The risk of Surgical Site Infections (SSI) in colon and rectal surgical procedures range from 5% to 27% and there are multiple risk factors identified. The SSI risk factors that have been identified are age, sex, BMI; laparoscopic vs open colectomy, stoma creation, operative duration, ASA score, wound classification, diabetes mellitus, smoking history, and intraoperative hypothermia. We performed a quality improvement project (QIP) at the Interim Louisiana State University Hospital (ILH), New Orleans, which is a major academic medical center.

**Objective:** The reason this QIP was initiated was because our overall infection rate was 17.53% (27/154) for colon and rectal cases:29.62% (8/27) superficial wound infection and 62.69 % 17/27 intra abdominal abscesses. With a 17.53 % SSI our institution was ranked in the worst performing quartile in the nation's hospitals by Centers for Medicare and Medicaid Services (CMS) Hospital-Acquired Conditions (HAC) Reduction Program, The goal of this QIP is to determine what are the statistically significant SSI risk factors at our institution and develop a "Colorectal Care Bundle for SSIs" in order to decrease the incidence of these infections at our institution.

**Methods:** A retrospective chart review on 154 patients post colon and rectal surgery, performed by 15 different surgeons for benign and malignant disease including major trauma blunt and penetrating wounds, urgent and emergent colectomies and elective colectomy and rectal resections between January 2012 through January 2013. We identified multiple categories of surgical site infection risk factors in order to determine the independent risk factors that contributed to the high incidence of SSI infections in our patient population. The patients were identified through the EPIC electronic health record system (EHR) and the chart notes in the inpatient and outpatient setting were reviewed.

**Results:** Univariate analysis identified the risk factors that reached statistical significance: those patients that required blood transfusions ( $p=0.02$ ), duration of the operative procedure ( $p= 0.04$ ) and trauma related colectomy resections/repairs ( $p=0.01$ ). Multivariate analysis identified smoking history (0.02) as an independent risk factor for development of SSI. There were several other risk factors that indicated a trend to higher risk of SSI's but did not reach statistical significance: age, comorbidity of Chronic Obstructive Pulmonary Disease (COPD), pre operative length of stay (LOS), total LOS, and the performance of intraoperative colonoscopy.

**Conclusion:** Section 3008 of the Patient Protection and Affordable Care Act (ACA) of 2010 established the Hospital-Acquired Condition (HAC) Reduction Program (HACRP) as an incentive program for applicable hospitals to reduce HCA's. The HAC reduction program requires the Secretary of the Department of Health and Human Services (HHS) to adjust payments to applicable hospitals that rank in the worst performing quartile of all subsections. In those

hospitals that are ranked in the worst performing quartile can receive a one percent payment reduction applied to all Medicare discharges between October 1, 2015 and September 30, 2016. Our quality improvement study identified that the patients who required blood transfusions, operative duration (Skin to skin), and colon resection related to trauma and history of smoking were significant risk factors for developing SSIs.

2:50pm-2:55pm

Saturday, June 3, 2017

Mini-Talk Session I

## **THE SUNSHINE ACT AND SURGEONS**

Meghan E Garstka MD, Dominique Monlezun PhD, Mary Killackey MD, Christopher Ducoin MD, Emad Kandil MD

Presenter: Meghan Garstka MD

Tulane University School of Medicine, New Orleans, LA

**Background:** The Physician Payments Sunshine Act (PPSA) mandates the submission of payment records between medical providers and industry.

**Objective:** We used the Open Payments Program (OPP) database to compare industry payments to surgeons and non-surgeons as well as among specialties, and to describe geographic distribution of payments.

**Methods:** We included all reported industry payments as recorded by the Centers for Medicare & Medicaid Services' Open Payments program in the United States from 2014-2015. A heat map was created based on United States census data and mean payments across states.

**Results:** Total payments were higher for the non-surgeon group, however, the overall median payments were significantly higher for surgeons. Orthopedic surgery was the top specialty by mean payments. Among general surgeons, the overall mean and median payments were highest to surgical oncologists and transplant surgeons, although total amounts were highest to plastic surgeons. Geographically, twelve states in the continental US received mean industry payments in the highest range (\$24.52-500,000.00); whereas seven states received mean industry payments in the lowest range (\$0.00-12.56).

**Conclusion:** There are significant differences in industry payments to surgeons versus non-surgeons and among surgical specialties, as well geographic distribution of payments. These data may prompt further investigation into trends and their causality and effects on research and practice. Awareness of industry payments is critical for surgeons, to avoid potential public misconceptions which may affect patient trust.

2:55pm-3:00pm

Saturday, June 3, 2017

Mini-Talk Session I

## **LAPAROSCOPIC APPROACH TO PERFORATED PEPTIC ULCERS TRENDS TOWARDS QUICKER RECOVERY**

S Hosein, MD; JC Lawrence, BA; GM Fuhrman MD; WS Richardson, MD.

Presenter: Salim Hosein MD

Ochsner Clinic Foundation, New Orleans, LA

**Background:** Traditionally, patients with perforated peptic ulcers (PPU) requiring operative intervention undergo exploratory laparotomy with peritoneal lavage and omental patch repair. Annually, approximately 2-14% of the 4 million people worldwide with ulcers present with perforation. First described by Mouret et al in 1990, a laparoscopic approach to the management of PPU is an accepted approach in appropriately selected patients.

**Objective:** We aimed to identify the frequency with which the laparoscopic approach has been utilized at Ochsner Clinic institutions and to assess for safety & outcome differences, when compared to the open approach, to guide future strategies.

**Methods:** Retrospective review of the EMR from 2012 to 2016 of operatively managed cases of PPU. Non-perforated or bleeding ulcers were excluded. Data was analyzed for differences in an intention-to-treat manner.

**Results:** 73 cases were identified. 12 (16%) were approached laparoscopically with completion in 84% and conversion to open in 16%. Demographics did not statistically vary other than preoperative uncontrolled morbidities ranging from advanced cancers (10), recent abdominal surgery (1) and immunosuppressed transplant recipients (2), to pre-operative MI (2), histoplasmosis (1) and decompensated cirrhosis (3). No laparoscopic patients had PUC vs. 19 in the open group. Length of stay (LOS) was shorter in laparoscopic group; other outcomes were not significantly different. Excluding PUC cases, means for OR time, days to liquids and LOS remained lower for the lap group, though not significantly. There were no mortalities in the lap group and 12 in the open group. Laparoscopic approaches were pursued primarily by Minimally Invasive surgeons.

**Conclusion:** In select patients, laparoscopic PPU management appears to be safe and may have better outcomes. In our experience, co-morbidities and surgeon preference play a role in technique selection but starting laparoscopically is worth considering.

3:00pm-3:05pm

Saturday, June 3, 2017

Mini-Talk Session I

## **PILOT STUDY OF SAVI SCOUT TO LOCALIZE NON-PALPABLE BREAST LESIONS SIGNIFICANTLY REDUCES RE-EXCISION RATE COMPARED TO WIRE LOCALIZATION**

Rachel Shirley, DO- principal and presenter

Co Authors: Prakash Peddi, MD; Shuja Ahmed, MD, Quyen Chu, MD

Presenter: Rachel Shirley DO

LSU Health Shreveport, Shreveport, LA

**Background:** Background: Wire localization (WL) is standard preoperative procedure to localize non-palpable breast lesions. The SAVI SCOUT® guidance system is an FDA-approved medical device that uses non-radioactive electromagnetic wave technology and serves as an alternate to WL technique.

**Objective:** Objective: The purpose of the study is to compare re-excision rates between WL and SAVI SCOUT®. A secondary measure was to assess the ease of performing such a technique by surgical trainees.

**Methods:** Methods: We performed an IRB approved retrospective chart review from 2011 to 2016 of all the females undergoing WL and compared them to women undergoing SAVI SCOUT® technique. Re-excision rates and weights of the final specimens were calculated. Statistical t-tests and Chi-square tests were used. P-value  $\leq 0.05$  was considered as statistically significant.

**Results:** Results: Of the 116 WL breast lumpectomies performed, 43 required re-excision (37%). Of the 43 SAVI SCOUT® performed, 30 were malignant; of these 30, only 4 required re-excision (13.3%;  $p=0.01$ ). This translates to a reduction of 64% with SAVI SCOUT®. The average specimen weight for the WL group was 63 g versus 58 g for the SAVI SCOUT® group ( $P=0.18$ ). The average margin width was 2.7 mm for the WL versus 3.0 mm for the SAVI SCOUT® ( $P=0.16$ ). Surgical residents were successful in localizing the lesions in 42/43 of the specimens (97.6%) patients using SAVI SCOUT® technique.

**Conclusion:** Conclusion: Re-excision rates were significantly lower with SAVI SCOUT® and this technique seems to be easily employed by surgical residents in training. Given its advantages, SAVI SCOUT® could be considered over WL technique.

3:05pm-3:10pm

Saturday, June 3, 2017

Mini-Talk Session I

## **DOES AGE MATTER? CORRELATION BETWEEN AGE AND HOSPITAL LENGTH OF STAY AFTER OPEN ABDOMINOPERINEAL RESECTION**

A. Arumugasaamy, A. Werner, W.R. Grimes, M. Stratton

Presenter: Anushka Arumugasaamy MD

LSU Health Shreveport, Shreveport, LA

**Background:** As the aging population continues to rise in the United States, their consumption of medical resources and healthcare continues to increase as well. Recent changes in healthcare policy advocate for cost saving measures. Hospital length of stay has increasingly been scrutinized as a metric that can have cost implications.

**Objective:** We aim to determine if there is a correlation between age and length of stay (LOS) in the hospital after open abdominoperineal resection (APR) for rectal cancer or anal canal squamous cell carcinoma.

**Methods:** Electronic health records from the outpatient clinic were queried from August 2011 to October 2016 to search for patients with an International Classification of Disease 9 (ICD-9) diagnosis of 154.1, 154.2, ICD-10 diagnosis code of C20, Current Procedural Terminology (CPT) code of 45110 and 45395, which resulted in 85 patients found. A retrospective chart review was performed to gather age, gender, date of procedure, length of hospital stay (days), post-operative readmissions, post-operative wound complications, neoadjuvant treatment with chemotherapy and/or radiation, and pathologic staging of the tumor. 47 patients (23 females and 24 males) had enough data available to compare age and LOS in the hospital. Correlation between age and LOS was determined with the Spearman rank correlation coefficient (R<sub>Sp</sub>). This nonparametric method was used because of the observed non-normal distribution of LOS.

**Results:** Both correlation and regression coefficients were positive indicating that LOS increases with age; however, the values are quite small. Given the non-significance of the correlation between LOS and age and the regression of LOS on age, the attained power of the test is calculated. With a sample of 47, attained power is only 12%. To have a power of 80% (minimum required power for a hypothesis test) at 5% level of significance for the 2-sided test of  $B=0$  vs.  $B=0.02$  (the observed B), a sample size of 575 is required.

**Conclusion:** These findings suggest that age alone does not have enough significant impact on LOS. Other factors, such as wound infections, nosocomial infections, surgical technique (open, laparoscopic, robotic) and comorbidities, need to be studied to determine their joint effect together with age on LOS. This would require the use of multivariate analysis. The observed small positive correlation between LOS and age among the patients did not demonstrate statistical significance. This is due to the small sample size resulting in low power. More patient accrual is required to confirm this positive trend.

3:10pm-3:15pm  
Saturday, June 3, 2017  
Mini-Talk Session I

## **NEW OPERATIVE APPROACH TO JEJUNO-JEJUNAL INTUSSUSCEPTION IN ROUX-EN-Y GASTRIC BYPASS PATIENTS**

JC Lawrence, BA; S Hosein, MD; JB Wooldridge, MD, FACS; WS Richardson, MD, FACS  
Presenter: Salim Hosein MD  
Ochsner Clinic Foundation, New Orleans, LA

**Background:** Laparoscopy is emerging as an acceptable approach to the management of jejuno-jejunal (JJ) intussusception in patients who have undergone Roux-en-Y gastric bypass (RNYGB) for weight loss. Typically, this occurs in a retrograde manner with a portion of the common channel passing through the JJ into the biliopancreatic limb (BPL). It is a relatively uncommon complication with reported incidence in post op RNYGB patients between 0.1-0.3%. Traditionally, patients with JJ intussusception requiring operative intervention have undergone exploratory laparotomy with either simple intraoperative reduction or resection of the affected portion with subsequent reconstruction, especially in cases of necrotic small bowel.

**Objective:** We explored the operative technique of decreasing the size of the JJ anastomosis utilizing a linear stapler. We hypothesized that utilizing a linear stapler to decrease the aperture of the JJ / intussusciptien by 50-75% following reduction, would decrease recurrence.

**Methods:** We conducted a retrospective review of electronic medical record (EMR) data from 2011-2015 for patients presenting with JJ intussusception requiring operative management, identified by CPT codes. Three patients were identified, all of whom had intermittent abdominal pain and intussusception on CT imaging.

**Results:** Three cases of retrograde intussusception were identified, two of which were started laparoscopically. One laparoscopic case was converted to open due to density of adhesions. The operative approach involved reduction of the intussusception, linear stapling of the JJ anastomosis along the prior staple line to reduce the anastomotic diameter by 50-75%, and tacking of the BPL to the distal small bowel (done in 2 of the 3 patients). None of the cases involved devitalized bowel. There were no complications or morbidities. Follow up visits at 2 weeks, 1 month, and 1 year confirmed abdominal pain related to incidents of intussusception had resolved and there were no recurrent intussusceptions.

**Conclusion:** A laparoscopic approach to JJ intussusception is not always possible. When the BPL – Roux anastomosis is involved in the intussusception, complete reconstruction of the JJ anastomosis may be avoided by employing a simple partial division of the previous intussusciptien, with or without distal tacking of the intussusceptum. However, this method is only applicable in cases where intussusception has been identified early and there are no contraindicating factors; i.e. irreversible ischemic changes or causative masses.

8:10am-8:20am

Sunday, June 4, 2017

Trauma & Critical Care

## RESUSCITATIVE THORACOTOMY IN PENETRATING TRAUMA – IDENTIFYING WHO WILL OBTAIN RETURN OF SPONTANEOUS CIRCULATION.

Fauveau, L.; Bevier-Rawls, E.; Hymel, A.; Manley, E.; Nguyen, N.; Williams, A.; Zimmermann, B.; Mooney, J.

Presenter: Lindsey Fauveau MD

LSU Health New Orleans, New Orleans, LA

**Background:** Survival following resuscitative thoracotomy remains low. Despite the poor outcomes, trauma surgeons continue to perform this procedure to allow for some hope of survival. That chance begins in the emergency department with return of spontaneous circulation (ROSC).

**Objective:** The purpose of this study was to identify those factors that are meaningful in our efforts to obtain return of spontaneous circulation in patients with penetrating trauma.

**Methods:** We retrospectively identified penetrating trauma patients requiring resuscitative thoracotomy at a single Level 1 trauma center from January 2010 to June 2016. Patient demographics, pre-hospital and emergency room clinical data, interventions, and outcome were collected and analyzed in order to ascertain which variables would be associated with ROSC.

**Results:** 116 patients with penetrating traumatic cardiac arrest underwent a resuscitative thoracotomy and were included. Demographic information including age, injury severity score, pre-hospital and arrival SBP revealed no statistical difference between patients with ROSC and no ROSC after resuscitative thoracotomy. 88% were male with 89.6% GSW and 10.3% stab wounds. Return of spontaneous circulation was observed in (53) 45.6% of subjects. Ability to obtain ROSC was observed in patients presenting with signs of life in the field (ROSC, 48 [94.1%]; no ROSC, 44 [73.3%]  $p=0.004$ ), signs of life on arrival to the emergency department (ROSC, 31 [58.5%]; no ROSC, 17 [27%]  $p<0.001$ ), and decreased in patients arriving to emergency department with ongoing CPR (ROSC, 27[50.9%]; no ROSC, 51 [81%] $p<0.001$ ).

**Conclusion:** When faced with a patient in extremis, signs of life in the field and on arrival, and the lack of CPR on arrival in the emergency department are factors associated with obtaining return of spontaneous circulation after resuscitative thoracotomy. These findings confirm the importance of signs of life in the field and on arrival as strong positive predictors in the overall benefit of a resuscitative thoracotomy.

8:20am-8:30am

Sunday, June 4, 2017

Trauma & Critical Care

### **EARLY MOBILITY IN THE SURGICAL ICU: A "TEST-RUN" IN AN ACADEMIC CENTER**

Smith AA; Friedman J; Raju S; Fiske H; Shana Zucker S; Aysenne A; Schroll R

Presenter: Alison Smith MD, PhD

Tulane University School of Medicine, New Orleans, LA

**Background:** Numerous studies have showed that early mobilization in surgical patients improves outcomes, including less ventilator days and decreased ICU stays. Despite these promising results, there is no universally accepted early mobility protocol in the majority of ICUs in the United States.

**Objective:** To add to the growing body of literature on early mobilization of surgical ICU patients and to demonstrate potential benefits in this population

**Methods:** A prospective data study was conducted at a single academic center from 2016-2017. All patients over age 18 without any exclusion criteria (first post-operative day, hemodynamically unstable, active MI, increasing ventilator requirements) were enrolled in a standardized early mobilization program. Data collected included ICU days, ventilator days, adverse events related to mobility, and disposition at discharge. Functional independence measure (FIM) scores at the time of admission and discharge were also collected. A control group of patients without early mobility were compared to the outcomes of this study using an unpaired t test. A p value <0.05 was considered to be significant.

**Results:** A total of 239 patients were identified and received early mobility (EM). Average total ICU days for patients was 5.8+0.5 days with average hospital length of stay 12.0+0.8 days. Average ventilator-free days were 4.2+0.4 days. Four adverse events (chest pain, n=1, line dislodgement, n=3) related to mobility were identified over the study period. Average FIM scores at admission were similar to discharge FIM scores (6.5+0.1 vs. 5.8+0.1). Patients could ambulate an average distance of 214.5+53.6 feet at the time of discharge. Compared to the control group of patients (n=75), no significant adverse effect on safety or effect on outcomes, such as increased hospital length of stay, was observed (p>0.05). The EM group did have increased average daily requirements of narcotics/sedatives during the first two days of the protocol (p

**Conclusion:** Results from a pilot study of the initiation of a standardized early mobilization protocol for surgical ICU patients demonstrated promising initial outcomes with minimal effect on patient safety. Future randomized control studies investigating this protocol in surgical ICU patients are needed.

8:30am-8:40am

Sunday, June 4, 2017

Trauma & Critical Care

## THE CDC DEFINITION FOR VENTILATOR-ASSOCIATED PNEUMONIA SURVEILLANCE LACKS CLINICAL SIGNIFICANCE IN TRAUMA ICU PATIENTS

R Schroll, S Zucker, M Lipcsey, A Smith, CT Grayson, D Swift, J Heaney, J Hunt, A Marr, J Duchesne.

Presenter: Shana Zucker BA

Tulane University School of Medicine, New Orleans, LA

**Background:** Ventilator associated pneumonia (VAP) is a significant source of morbidity and mortality in the trauma intensive care unit (TICU). Center for Disease Control (CDC) guidelines have recently been revised to provide a standard definition for VAP surveillance. However, these criteria are strict and complex. We hypothesize that the new CDC definition underreports rates of clinically relevant VAP.

**Objective:** To determine if VAP rates reported by the new CDC surveillance definition are reflective of clinical VAP rates.

**Methods:** A 6-month retrospective analysis was performed of all intubated patients in the TICU of a level 1 trauma center. Because no diagnostic gold standard exists for VAP, patients were screened for presence of VAP using multiple clinical and surveillance definitions including the Critical Pulmonary Infection Score (CPIS), CPIS plus broncho-alveolar lavage (BAL), American College of Chest Physicians (ACCP) guidelines, previous CDC definition, Trauma Quality Improvement Program (TQIP) definition, and "Clinical Diagnosis" (those diagnosed with and treated for VAP by the intensivist). VAP rates were compared to those reported by hospital infection control using the new CDC definition.

**Results:** Out of 90 patients, there were 7 VAPs by new CDC criteria. The CDC VAP rate per 1000 vent days (8.1) was significantly lower compared to Clinical (30.2), ACCP (26.7) and TQIP (27.9) criteria, ( $p < .05$  for all). VAP diagnosis by CDC criteria compared to other definitions was highly specific (93.8-100%) but had low sensitivity (22.2-35.7%). Agreement between VAP diagnosis by CDC criteria and other definitions were poor, with Cohen's Kappa coefficients ranging from 0.18 to 0.41.

**Conclusion:** The new CDC definition significantly underreported VAP and did not correlate with VAP incidence when compared to other definitions. Using CDC guidelines for VAP surveillance reporting may lead to results that lack clinical relevance. If VAP occurrence is to be used as a benchmark for performance, these surveillance criteria may need to be revised.

8:40am-8:50am

Sunday, June 4, 2017

Trauma & Critical Care

## **PEDIATRIC PEDESTRIANS AND BICYCLISTS VERSUS MOTOR VEHICLE ACCIDENTS: COMPARISON OF INJURY PATTERNS BY MECHANISM AND INFLUENCE OF SOCIOECONOMIC STATUS**

Ballard DH, Pelliccio N, Rudd J, Caldito G, Chu QD, Samra NS

Presenter: John Savoy Surgery Resident

LSU Health Shreveport - Department of Surgery, Shreveport, LA

**Background:** Based on data from the National Highway Traffic Safety Administration, approximately 50 children per week in the US are struck by a vehicle. Low socioeconomic status, African-American race, and lack of insurance have all been linked with higher hospitalization rates and mortality in pediatric trauma. We hypothesized that factors such as higher speed limits, lack of proper infrastructure, and less parental supervision in indigent neighborhoods are possible causes for these disparities in the pediatric patients involved in motor vehicle accidents.

**Objective:** The aim of our study was to evaluate the pediatric patients in the University Health trauma data base involved in either pediatric pedestrian or cyclist vs automobile related trauma and determine if there was a disparity in median household income for patients involved. This would allow us to devise a plan on how to be proactive in the community whether it be through education or changes in traffic laws to prevent these traumas.

**Methods:** Data base query was performed on UH Trauma data base between 2003 and 2015 of all pediatric patients involved in pedestrian or cyclist versus automobile. Study population consisted of patients less than 18 years old admitted to UH with ICD9 codes for pedestrian or cyclist versus automobile injuries. Further chart review was performed to obtain demographic and socio-economic characteristics, injury patterns, procedures, length of hospital stay and outcomes. Patient's residence, median income, and percentage below poverty line were obtained using patient's ZIP codes. Statistical analysis consisted of Chi-square, Fisher's exact test, and Wilcoxon rank sum test to compare patients on categorical and continuous variables.

**Results:** There were 253 patients that met inclusion criteria across all study groups with the majority being males, African Americans, and underinsured. The pedestrians were younger than the bicyclists ( $p < 0.01$ ) and had a higher proportion with high ISS than the bicyclists ( $p = 0.04$ ) but there was no significant difference in mortality ( $p = 0.57$ ). Pedestrians had higher rate of intra-abdominal injury (27% vs. 12.5%,  $p = 0.02$ ) with a higher rate of abdominal surgery (11.1% vs. 1.6%,  $p = 0.02$ ). There were no significant differences between pedestrians and bicyclists on outcomes (death, length of stay, complication, infection, brain death, etc.). The low income group had a significantly higher rate of hospital transfer than the high income group (51.8% vs. 24.6%,  $p < 0.01$ ). There was a higher death rate in the high income group with 13 (11.8%) deaths compared to 7 (4.9%) in the low income group ( $p = 0.04$ ).

**Conclusion:** Comparing patients by pattern of injury, the pedestrians had higher rates for intra-abdominal injury and abdominal surgery than the bicyclists possibly due to bicyclist being a more visible target.

Stratifying patients by income group, the high income group had higher mortality rate and the low income group had higher rates for hospital transfer, respiratory complications, and infection.

8:50am-9:00am

Sunday, June 4, 2017

Trauma & Critical Care

## **INSURANCE STATUS AS A PREDICTOR OF HOSPITAL LENGTH OF STAY IN TRAUMA PATIENTS**

R Schroll, J Friedman, D Swift, S Couch, P Greiffenstein, A Theriot, J Hunt.

Presenter: Jessica Friedman MD

Tulane University School of Medicine, New Orleans, LA

**Background:** Insurance status has been shown to be associated with changes in hospital length of stay (HLOS) and mortality in various clinical settings though there is little data evaluating the impact of insurance status on HLOS in severely injured trauma patients.

**Objective:** To determine if insurance status is independently correlated with hospital length of stay in trauma patients.

**Methods:** This was a retrospective review of all adult trauma patients treated at an urban level 1 trauma center from 2012-2014. Prisoners, those who died in hospital, left against medical advice or were transferred laterally to other inpatient settings were excluded. Negative binomial regression modeling was performed to calculate independent changes in HLOS based on a variety of prognostic factors and to test for the interaction between multiple prognostic indicators.

**Results:** There were 1337 insured patients and 1584 self-pay patients. Hospital length of stay was 53.1% longer in patients with insurance than without (3.4 additional days  $p < .001$ ). When confounding factors were controlled for, insurance status remained a significant predictor of HLOS with insured patients staying 11.03% (.52 additional days  $p < 0.001$ ) longer than self-pay patients. Longer HLOS was also independently associated with higher injury severity score, number of inpatient procedures, blunt trauma, male gender, increased age, higher shock index, lower Glasgow coma score, presence of pre-existing co-morbidities and discharge to a medical facility. Race was not an independent predictor of HLOS, nor was presence of an isolated orthopedic injury. There were no significant interactions between insurance status and race, injury severity score, number of comorbidities or discharge to a medical facility.

**Conclusion:** After correcting for confounding factors, trauma patients without insurance still had significantly shorter HLOS. Presence of comorbidities, number of inpatient procedures, injury severity, injury type, and discharge destination did impact length of stay, but did not account for the difference in length of stay associated with insurance status. Further study is warranted to determine what factors account for these findings, and if disparities in length of stay in these patients correlate with disparate outcomes.

10:05am-10:10am  
Sunday, June 4, 2017  
Mini-Talk Session II

### **DISRUPTIONS IN SURGICAL WORKFLOW: PERCEPTIONS AND IMPLICATIONS**

David S. Silver BS, Alan D. Kaye MD PhD DABA DABPM DABIPP, Elyse M. Cornett PhD, Charles Fox MD, Douglas P. Slakey, MD MPH

Presenter: David Silver BS

Tulane University School of Medicine, New Orleans, LA

**Background:** Surgical flow disruptions (SFD) are defined as deviations from the natural progression of a procedure which are potentially compromising to the safety of the operation. Investigators have demonstrated that SFDs can increase the mental workload and likelihood of surgical errors. This study investigated the frequency, cause, and significance of flow disruptions from the perspective of operating room team members.

**Objective:** The objective of the study is to determine how operating room staff see, understand, and perceive surgical workflow disruptions through an online survey. A surgical flow disruption is defined as deviations from the natural progression of a procedure that potentially compromise the safety of the operation. Studies have previously demonstrated that these disruptions exist and can potentially lead to adverse outcomes. Our study looks to understand how team members perceive and what reaction if any occurs when a flow disruption happens.

**Methods:** A questionnaire consisting of 16 questions was used. Operating Room (OR) personnel at three academic medical centers were emailed a link. The questionnaire was designed to validate the definition of disruptions and explore potential consequences of SFDs.

**Results:** RESULTS: There were 111 responses (64% response rate). 40% of respondents were between the ages of 25-34 and 56% were male. Nurse anesthetists made up the largest group of respondent (32%). 65% reported that surgical flow disruptions happen either "several times a day" or "every procedure." 40% ranked "poor communication" as the most frequent cause of SFDs. Respondents who identified as attending surgeons felt impacts in patient safety and staff burnout were the most likely consequence of SFDs. Scrub technicians and nurses, felt that economic consequences were the most likely result.

**Conclusion:** The data demonstrates that OR team members recognize that surgical flow disruptions are an issue and believe poor communication is a significant factor. Responses confirm the belief that SFD compromise patient safety and lead to personnel burnout. By understanding surgical flow disruptions from this perspective, researchers will be better equipped to design interventions for optimizing OR outcomes.

10:10am-10:15am  
Sunday, June 4, 2017  
Mini-Talk Session II

**PROFESSIONALISM: A CORE COMPETENCY, BUT WHAT DOES IT MEAN? A SURVEY OF SURGERY RESIDENTS**

Elizabeth Miller MD, Joshua Dilday DO, Kyle Schmitt MD, Brian Davis MD, Kurt G. Davis MD  
Presenter: Kyle Schmitt MD  
LSU Health New Orleans, New Orleans, LA

**Background:** Professionalism is one of the 6 core competencies of the Accreditation Council of Graduate Medical Education (ACGME). Despite its obvious importance, it is poorly defined in the literature and an understanding of its meaning has not been evaluated on surgical trainees. The American College of Surgeons (ACS) has previously published tenets of surgical professionalism. However, surgery residents may not share similar views on professionalism as those of the ACS.

**Objective:** Few programs have a formal curriculum in professionalism. How can surgical educators certain that professional generations of surgeons are trained if surgical education is not focusing on professionalism education? We sought to ascertain how surgical trainees defined professionalism and to see if their thoughts are aligned with the twenty tenets as outlined by the American College of Surgeons Task Force on Professionalism.

**Methods:** Surgical residents of all levels at two surgery residencies located in the same city were interviewed regarding their personal definitions, thoughts, and experiences regarding professionalism during their training. They were then queried regarding twenty points of professionalism as outlined by the ACS tenets of professionalism.

**Results:** Eighteen surgery residents participated. Expressed definitions of professionalism centered around clinical competence. Surgery residents conveyed experiences with both professional and unprofessional behavior. Seven of the 20 ACS tenets of professionalism were unanimously agreed upon. There were key differences between their definitions and those as outlined by the ACS. Least agreed upon ACS tenets of professionalism include professionalism education, public education, and public health.

**Conclusion:** Surgical trainees express personal experiences in both professional and unprofessional behavior. Their definitions of professionalism are not as expansive as those of the ACS and seem to focus on patient and colleague interaction. Due to the lack of congruency, a tailored curriculum for professionalism based upon ACS tenets appears warranted.

10:15am-10:20am  
Sunday, June 4, 2017  
Mini-Talk Session II

## COMPLICATIONS AFTER ENDOVASCULAR TREATMENT OF HEPATIC ARTERY STENOSIS FOLLOWING LIVER TRANSPLANTATION

W. C. Sternbergh III, Leighton E. Goldsmith, Kristy C. Wiebke, John Seal, Clayton Brinster, Taylor A. Smith, Hernan A. Bazan

Presenter: Leighton Goldsmith MD

Ochsner Clinic Foundation, New Orleans, LA

**Background:** Hepatic artery stenosis (HAS) after liver transplantation can progress to hepatic artery thrombosis (HAT) and a subsequent 30-50% risk of graft loss. While endovascular treatment of severe HAS after liver transplantation has emerged as the dominant method of treatment, the potential risks of these interventions are poorly described.

**Objective:** The objective of this retrospective review was to focus on salvage techniques of complications that occur with endovascular treatment for HAS as well as identify the potential risks associated with early intervention for HAS.

**Methods:** A retrospective review of all endovascular interventions for HAS after liver transplantation between 8/2009 and 3/2016 was performed at a single institution, which has the largest volume of liver transplantation in the United States since 2011. Severe HAS was identified by routine duplex surveillance ultrasound (peak systolic velocity > 400 cm/s, resistive index < 0.5 and presence of tardus parvus waveforms).

**Results:** In 1,129 liver transplant recipients during the study period, 106 angiograms were performed in 79 patients (6.9%) for severe de-novo or recurrent HAS. Interventions were performed in most of the cases (99/106, 93.4%), either with percutaneous transluminal angioplasty (PTA) alone (34/99) or with stent placement (65/99). Immediate technical success was 91%. Major complications occurred in 8/106 (7.5%) cases, consisting of target vessel dissection (5/8) and rupture (3/8); successful endovascular treatment was possible in 6 of the 8 (75%) patients. Ruptures were treated with either the use of a covered coronary balloon-expandable stent graft or balloon tamponade. Dissections were treated with placement of bare metal or drug-eluting stents. No open surgical intervention was required to manage any of these complications. With a median of follow-up of 22 months, 4/8 (50%) patients with a major complication progressed to HAT, compared to 1/71 (1.4%) in patients undergoing a hepatic intervention without a major complication ( $P < .001$ ). One patient required re-transplantation. Severe vessel tortuosity was present in 75% (6/8) of interventions with a major complication, compared to 34.6% (34/98) in those without ( $P = .05$ ). In the complication cohort, 37.5% (3/8) of the patients had received a second liver transplant prior to intervention, as compared with 12.6% (9/71) of the patients in the non-complication cohort ( $P = .097$ ).

**Conclusion:** While endovascular treatment of HAS is safe and effective in most patients, target vessel injury is possible. Severe tortuosity of the hepatic artery and prior re-transplantation were associated with a 2-3 fold increased risk of a major complication. While acute vessel injury can be managed successfully using endovascular techniques, these patients have a significant risk of subsequent HAT and need close surveillance.

10:20am-10:25am  
Sunday, June 4, 2017  
Mini-Talk Session II

## THE GENERAL SURGEON IN THE MANAGEMENT OF THE PATIENT WITH CYSTIC FIBROSIS AFTER LUNG TRANSPLANT

Ryan Phillips, MD; Michael Bates, MD; Reinadlo Rampolla, MD; George Fuhrman, MD  
Presenter: Ryan Phillips MD  
Ochsner Clinic Foundation, New Orleans, LA

**Background:** Cystic fibrosis patients treated by lung transplantation (LT) develop abdominal complications due to altered gastrointestinal physiology and the need for lifelong immunosuppression which may impact their long term survival.

**Objective:** We performed this study to determine the impact of surgical management on survival after LT in patients with CF.

**Methods:** We reviewed our institutional lung transplantation database to identify all cystic fibrosis patients treated since 2011. Our electronic medical record was used to determine survival from the day of transplant until last followed up. An estimation of overall survival was calculated by the Kaplan-Meier method. We identified all hospital admissions for abdominal pain, small bowel obstruction, and all abdominal surgeries. The impact on survival post lung transplant for cystic fibrosis patients was determined by Cox regression analysis.

**Results:** We identified 30 patients treated with lung transplantation for cystic fibrosis, with 19 (63%) currently alive and none lost to follow up. The estimated median survival was 1,446 days. Twelve patients never required admission for abdominal pain, while 18 required from 1-8 admissions. The number of hospital admissions did not impact survival ( $p=0.48$ ).

### Eleven patients required surgery:

- 2 Small bowel resections
- 1 Richter's hernia repair
- 2 Laparoscopic Cholecystectomies
- 1 Laparoscopic Nissen fundoplication
- 1 Hysterectomy
- 1 Liver packing for hemorrhage
- 1 Femoral artery repair
- 1 Gastrocutaneous fistula repair
- 1 Thoracoscopic Decortication.

Whether patients required surgery did not impact post transplant survival ( $p=0.40$ ). Nine patients developed a small bowel obstruction (7 managed non-operatively) and an SBO diagnosis was associated with a shorter survival ( $p=0.02$ ).

**Conclusion:** General surgeons should be familiar with lung transplantation in cystic fibrosis patients and be prepared to manage these patients. Survival after transplant is not affected by the frequent need for surgery. The unique problems with small bowel obstruction in cystic fibrosis patients due to inspissated intestinal contents, is associated with shorter survival and preventative measures to avoid this complication are warranted.

10:25am-10:30am  
Sunday, June 4, 2017  
Mini-Talk Session II

## RELIABILITY OF NUCLEAR BRAFV600E AS A PREDICTIVE MARKER FOR MELANOMA AGGRESSIVENESS

Green EA, Moore RF, Lee M, Sholl AB, Al-Qurayshi Z, Wang A, Hassan M, Kandil E

Presenter: Erik Green

Tulane University Department of Surgery, New Orleans, LA

**Background:** Approximately 50% of cutaneous melanoma harbor BRAF gene mutations, resulting in constitutive activation of the mitogen-activated protein kinase (MAPK) pathway. The advent of FDA-approved small molecule inhibitors of BRAF and MEK have revolutionized the management and improved progression-free survival in metastatic melanoma. Because of this, BRAFV600E status is now of clinical importance.

**Objective:** We studied whether site-specific intracellular localization of BRAFV600E has clinical significance in primary melanoma.

**Methods:** IHC analysis of BRAFV600E was performed on formalin-fixed paraffin-embedded specimens of primary melanoma (n = 91). Correlation to clinical factors was analyzed by fisher's exact test and two-tailed t tests. The reliability of BRAFV600E as a predictive marker for melanoma aggressiveness has been analyzed in vitro and in vivo, using melanoma cell lines and animal models, respectively.

**Results:** Of 91 melanoma patients, 39 cases were classified as stage 1, 42 cases as stage 2, 4 cases as stage 3, and 6 cases as stage 4. Cytoplasmic BRAFV600E was observed in 35% (29/91). Nuclear BRAFV600E was observed in 29% (27/91). Overall BRAFV600E expression was correlated with clinical stage (p = 0.011), mitotic activity (p = 0.010) and ulceration (p = 0.045). Nuclear BRAFV600E expression was correlated with clinical stage (p < 0.001), tumor stage (p < 0.001), nodal stage (p < 0.017), depth of invasion (p = 0.005), Clark level (p < 0.001), mitotic activity (p < 0.001), ulceration (p < 0.001), cytology (p = 0.029) and margin status (p = 0.017). To understand the molecular action of BRAFV600E on melanoma aggressiveness, the impact of cytoplasmic and nuclear BRAFV600E on melanoma progression was tested in vitro and in vivo. Melanoma cells expressing the nuclear BRAFV600E showed significant growth advantage over melanoma cells expressing the cytoplasmic BRAFV600E. Also, mice bearing melanoma cells expressing nuclear BRAFV600E showed tumor growth advantage over mice bearing melanoma cells expressing cytoplasmic BRAFV600E.

**Conclusion:** Our data suggest that nuclear localization of BRAFV600E is associated with melanoma aggressiveness, as evidenced in human specimens, as well as in vitro and in vivo melanoma models. Further study is needed to confirm the clinical relevance of nuclear location of BRAFV600E as a predictor and/or prognostic marker for melanoma treatment.

10:30am-10:35am  
Sunday, June 4, 2017  
Mini-Talk Session II

### **PRIMARY URETERO- URETEROSTOMY IN RENAL TRANSPLANT, AN OLD FORGOTTEN BUT PROMISING TECHNIQUE**

Shokouh-Amiri H, Poudel Rhiju, Ahmadzadeh S, Aultman D, Singh N, Samant H, Zibari G  
Presenter: Rhiju Poudel. MD  
Willi KnightonHealth System, Shreveport, LA

**Background:** Ureter anastomosis is considered the achilles heel of renal transplant. Different types of Uretero-neocystostomy anastomosis techniques have been used as well as Uretero-Ureterostomy but latter technique fell out of favor for not a particular reason. Our center resurrected this technique and we are reporting our initial experience with renal transplant Uretero-ureterostomy anatomosis.

**Objective:** To evaluate the safety of uretero-ureterostomy technique in renal transplant as well as surgical outcomes and long term results of patients who underwent renal transplant through this technique.

**Methods:** Since 2008 we have performed 34 ( 31 of them in the last 9 months) Primary Uretero-ureterostomy in 24 cadaveric kidney transplant , 3 living related kidney transplant, 3 kidney pancreas transplant and 5 liver kidney transplant( 3 orthotopic liver and kidney). Double J stent placed, removed 6 weeks after transplant. All anastomosis was performed with 6-OPDS under loop magnification over double J stent. Operation time, leak, fluid collection, rate of ATN, how long we kept Foley in, incidence of stricture, length of stay, graft and patient survival were measured.

**Results:** Mean age was  $48.9 \pm 13$  years, mean operation time was  $166.3 \pm 41$  minutes, estimated blood loss was less than 100ml, leak rate was 0.04( 1 patient) , Foley catheter was kept for  $3.3 \pm 2.1$  days, length of stay was  $5.6 \pm 1.9$  days. With this short follow up no strictures have been detected, and the graft and patient survival was 100%.

**Conclusion:** Primary uretero-ureterostomy in renal transplant is a safe procedure and is an alternative to Uretero-neocystostomy.

10:35am-10:40am  
Sunday, June 4, 2017  
Mini-Talk Session II

## **SURGICAL OUTCOMES OF ROBOT-ASSISTED THYROIDECTOMY FOR THYROID CANCER**

AlZahrani H, Aidan P; Bu Ali D, Murad F; Syed T, Bechara M, Boccara G, SW, Kandil E.

Presenter: Hassan Alzahrani MD

Tulane University, School of Medicine, New Orleans, LA

**Background:** Recently, many studies reported the safety and feasibility of robot-assisted thyroidectomy, but most of these studies were performed in Asia. Although there were several small series and case reports from the United States, most of these cases were for benign disease.

**Objective:** The aim of our study is to report the safety and feasibility of robot-assisted thyroidectomy for thyroid cancer in the western population.

**Methods:** Retrospective review of all patients who underwent robot-assisted thyroidectomy for thyroid cancer, over 6 years. This study was conducted in two centers, one in France and one in USA. We analyzed demographic data, operative outcome and early oncologic outcome measures including; pathological margins and biochemical (thyroglobulin level) or radiological evidence for recurrence.

**Results:** Total of 165 robotic cases were included in the analysis. 20.6% of the patients underwent central lymph node dissection and 6.7 % had lateral neck dissection. The transaxillary approach was performed in 95.8% and the remaining underwent retroauricular approach. The mean age was  $48.8 \pm 13.5$  years and BMI was  $24.5 \pm 4.3$ . The average nodule size was  $2.5 \pm 1.7$ cm. The mean operative time was  $135.5 \pm 55.7$  minutes with 3 patients required conversion to conventional cervical approach. 14 (8.4%) Complications were reported, including 2 (1.2%) hematomas, 3(1.8%) seromas and 9 (5.5%) transient vocal cord paralysis. Three (1.8%) patients had focal positive margins. The mean thyroglobulin level was  $0.16 \pm 0.4$ .

**Conclusion:** Robot-assisted thyroid surgery is a safe and feasible approach for managing selected group of patients with thyroid cancer in the western population, and is associated with sound oncologic outcome.