

ADVANCED COLECTOMY TRAINING (ACT): A STANDARDIZED APPROACH FOR TEACHING MINIMALLY INVASIVE (MIS) COLORECTAL SURGERY

ABSTRACT #30 REF: 11003806

Introduction: Despite RCT trials demonstrating the safety and benefits of MIS colorectal resections, the majority(62%) of elective colorectal resections are performed open. Hurdles to the adoption of MIS are related to the lack of adequate training. Our objective was to evaluate a standardized MIS-ACT program targeted at attending General and Colorectal Surgeons looking to advance their skill set.**Methods:** A prospectively maintained database was queried from 10/16 to12/17. The MIS-ACT program consists of a didactic session coupled with a cadaver lab to teach a standardized approach for colorectal resections(Right-7 steps;left-sided-9 steps) each with specific landmarks and dissection goals. Each MIS procedure is recorded and an onsite proctor is present to reinforce the step. Patient age, gender, case type, prior surgery, resection type(right,left,sigmoid,LAR,APR), type of incision/extraction site, EBL, operative time, MIS approach(HA,lap,robotic), conversion rate, and anastomosis type(intra vs extracorporeal), was collected. Surgeons were evaluated in person and/or via video for room setup, patient-positioning, safe-access, and standardized steps for the procedure with an overall rating at the end of each case(experiencing difficulty, competent, proficient). This continues until the surgeon is deemed proficient in all steps.

Results: 8 surgeons completed the MIS-AC with 28 colorectal procedures(17 left-sided,11 right-sided). The mean age was 63+/-3. 100% male 25% of which had prior abdominal-surgery. 61% were performed via HA, 25% lap, and 14% robotic with one lap-case converted to open. The operative time was 3.98+/- 0.1 hours. The EBL was 70+/- 10cc. The median cases to fully proficient was three. Post MIS-ACT, there was a 48% increase in the number of MIS-colorectal resections(33%to58%).

Conclusions:Our study demonstrates the feasibility and efficacy of MIS-ACT and resulted in a 50% increase in MIS-colorectal resections. This program can be replicated and disseminated to other sites to train surgeons interested in advancing their MIS skill set which would benefit patients undergoing colorectal resections.

THE IMPACT OF A STANDARDIZED MINIMALLY INVASIVE ADVANCED COLECTOMY TRAINING (ACT) PROGRAM ON OPERATIVE APPROACH FOR PATIENTS UNDERGOING ELECTIVE BENIGN COLORECTAL SURGERY

ABSTRACT #31 REF: 11003366

Introduction: Minimally invasive surgery (MIS) has become prevalent for malignant colorectal resections, with a reported 38% MIS adoption rate [Kwon S]. MIS adoption rates for benign colorectal surgeries is significantly less and is likely due to the lack of dedicated advanced MIS colectomy training for general surgeons. Our objective was to determine the impact of the ACT program on benign colorectal surgery MIS adoption rates.

Methods: Elective colorectal procedures between 1/1/13 and 11/14/17 were reviewed. On 8/1/16 the ACT training program, consisting of didactic session, cadaver lab, in-person proctoring, and video case review, was implemented for all general surgeons who were not routinely performing MIS colorectal procedures. Cases were stratified to open vs. MIS. Demographics, comorbidities, operative approach, conversion to open, length of stay (LOS), and readmission rates were collected and compared pre/post-ACT. Univariate analysis was performed using Student's t-test and X².

Results: 172 total cases were identified (pre=124, post=48). There was a statistically significant increase in MIS benign colorectal cases performed after ACT (33.4% vs. 58.3%, p=0.003). LOS significantly decreased post-ACT (8.2 ± 0.6 vs. 5.6 ± 0.4 , p=0.0004). There was a trend towards decreased readmission rates (18.5% vs. 16.7%, p=0.8). Most of the readmissions in the post group were due to open procedures. There were no conversions to open in the pre-ACT group and 2 in the post-ACT group. When all open cases were compared to all MIS cases, there was a significant decrease in LOS (9.1 ± 0.6 vs. 5.1 ± 0.6 , p<0.0001) and readmission rates (23.5% vs. 8.6%, p=0.01).

Conclusions Implementation of a standardized MIS ACT program significantly increased the rate of MIS benign colorectal procedures by 25%, resulting in decreased LOS and readmission rates. Further studies need to be performed to determine the impact of the ACT program on resource utilization.

WALKING IS RARE AND HOSPITALIZATION IS COMMON AFTER MAJOR AMPUTATIONS

ABSTRACT #32 REF: 11003323

Introduction: Major lower extremity (LE) amputation is often the “last resort” in the vascular surgeons’ arsenal. There are robust resources for Veterans to assist in fitting appropriate candidates with a prosthesis, but rehabilitation strategies to improve Veteran ambulation are lacking. This pilot study was designed to identify the time to healing and walking in the Veteran population expected to be able to ambulate after major LE amputation.

Methods: Veterans who had walked within one month of undergoing major LE amputation were recruited into this IRB approved prospective study. All of these Veterans had a desire to be fitted and use a prosthetic, and participate in rehabilitation. Veteran comorbidities and outcomes were recorded by the treating vascular surgery team.

Results: 28 Veterans were consented and enrolled in this study. With an average follow up of 363 days, only 20 Veterans were alive with a healed amputation. 5 Veterans had died (3 during the initial hospitalization). Of the 25 Veterans discharged from the hospital, there was an average of 5 subsequent hospitalizations during the follow-up period. Only 11/25 Veterans had healed their amputation within 3 months, and only 5 Veterans were walking with a prosthesis. The average time from operation to walking with a prosthesis for these Veterans was 7.4 months.

Conclusions: Veterans at this VAMC who underwent major amputation commonly had delayed amputation healing, frequent subsequent hospitalizations, and were unlikely to walk again. However, for those that did walk, the average time to walking with a prosthesis were similar between Veterans with early (=4 months) wound healing. This may suggest that rehabilitation strategies that focus on improved wound care and healing rather than prosthesis fitting may ultimately achieve better ambulation outcomes.

BENEFIT OF PRONE POSITIONING IN PATIENT WITH SEVERE ARDS FOLLOWING LAPAROTOMY

ABSTRACT #33 REF: 11003296

We report prone ventilation in a patient who developed severe ARDS post-laparotomy, which resulted in improvement of hypoxemia and successful extubation.

A 64 year old female smoker with COPD underwent elective perineal procto-sigmoidectomy procedure for rectal prolapse. She was discharged home on post-operative day (POD) 2. On POD 15, she presented to the hospital with abdominal pain, bright red blood per rectum associated with hemodynamic instability. She underwent exploratory laparotomy with evacuation of large, infected pelvic hematoma and diverting loop ileostomy. She required blood transfusions and vasopressors and remained in septic shock post-operatively. Thoracic CT scan showed severe, diffuse, patchy ground-glass opacities throughout lungs bilaterally, indicating ARDS. Despite Bivent mode on ventilator (P high 30, FiO₂ 90%, PEEP 10), hypoxemia persisted. Prone positioning was therefore initiated and continued for 16 hour intervals daily for 3 consecutive days. ABGs in prone position showed marked improvement in pO₂ compared with ABGs in supine position, demonstrating improvement in alveolar oxygenation in prone position. (PO₂: FiO₂ ratios in prone versus supine position on 3 successive days showed gradual improvement: 104 versus 66; 120 versus 75, 228 versus 102). After 3 days of proning, oxygenation was maintained in supine position. Ventilator settings were gradually weaned. On the 14th day after laparotomy, she was extubated. The etiology of ARDS in this patient was likely intra-abdominal sepsis for which she received a course of antibiotics. Enteral feeds were continued while in prone position.

Prone ventilation resulted in improvement of hypoxemia and avoided the need for tracheostomy or extracorporeal membrane oxygenation. There were no complications related to proning. This report demonstrates successful extubation with prone positioning in a post-laparotomy patient with severe ARDS. Laparotomy should not be considered a contraindication to proning, which should be initiated early in patients with severe ARDS, with appropriate safety protocols in place.

LAPAROSCOPIC REPAIR OF A GIANT PARAESOPHAGEAL HERNIA WITH SHORT ESOPHAGUS

ABSTRACT #34 REF: 11003197

INTRODUCTION: The hiatal hernia is a common disorder with four different sub types – sliding hiatal hernias (type I) and paraesophageal hernias (type II-IV). Even though repair of completely asymptomatic hiatal hernia is not indicated, all symptomatic paraesophageal hernias should be repaired. Here we discuss a patient with a giant paraesophageal hernia presenting with obstructive symptoms.

METHODS: A 78 years old man presented to the emergency room complaining of dysphagia with inability to tolerate solid food. He had a known hiatal hernia since the early 1980's but became symptomatic recently. In ED, he was found to have aspiration pneumonia but the work-up in did not suggest any evidence of gastric volvulus. He was admitted for supportive care and medical optimization. Once he was treated for the aspiration pneumonia and medically optimized, he was taken to the operating room for a laparoscopic paraesophageal hernia repair with a biologic mesh, partial fundoplication and Collis gastroplasty as seen in the video. The patient tolerated the procedure well, and there was no complication.

RESULTS: The patient was seen in the clinic for a post-operative follow up. He was doing well without acute issues or concerns.

CONCLUSIONS: Even the large paraesophageal hernia can be repaired a transabdominal approach with a laparoscopy offering decreased morbidity compared to an open surgery. Furthermore, the use of mesh in these large hiatal hernias has shown to decrease short-term recurrence rates.

RECALIBRATION OF THE RISK ANALYSIS INDEX OF FRAILITY SIGNIFICANTLY IMPROVES PREDICTIVE PERFORMANCE AMONG SURGICAL PATIENTS

ABSTRACT #35 REF: 11003013

Background: The Risk Analysis Index (RAI) is a frailty assessment tool for improving preoperative surgical risk-assessment. Despite demonstrated utility in surgical populations, the original RAI was developed in a population of nursing home residents. We sought to improve performance by recalibrating the RAI specifically for surgical patients utilizing the Veterans Affairs Surgical Quality Improvement Project (VASQIP) dataset.

Methods: This was a retrospective analysis of a representative, nation-wide, prospectively enrolled 4-year cohort of patients presenting for major, elective, non-cardiac surgery in the Veterans Health Administration. After computing the original RAI for all patients in the VASQIP dataset, we recalibrated the scoring system among development and confirmation samples, comparing the discrimination and calibration of the original and revised RAI. We also explored model performance with the addition of biomarkers.

Results: 480,731 VASQIP cases between April 1, 2010 and March 31, 2014 were included in this analysis. A logistic regression model using the RAI generated from administrative data to predict 180-day mortality demonstrated excellent discrimination ($c=0.813$ [95% CI 0.810-0.817]). Recalibrating the scoring system significantly improved discrimination (0.813 to 0.842; $p<0.001$). Improved model calibration reduced the median absolute difference between the observed and predicted mortality (8.45% (IQR 2.48-17.16) to 1.23% (IQR 0.12-8.50)). The proportion of patients where the 95% CI of the observed mortality overlapped the predicted mortality increased from 22.1% to 46.5%. Addition of known high value biomarkers to the model (creatinine, hematocrit, BMI or prealbumin) significantly improved model discrimination (c -statistics of 0.887, 0.874 and 0.851 for 30-, 180-, and 365-day mortality) but changes in calibration were of uncertain clinical significance.

Conclusions: The recalibrated RAI offers significant advantages over the initially implemented tool. Importantly, it is now validated in a large, nation-wide sample of surgical patients. Although theoretical improvements in model performance remain possible, model calibration is now sufficiently precise to inform clinical decisions.

ORAL CAVITY AND PHARYNGEAL CANCER INCIDENCE, TRENDS AND SURGICAL THERAPY IN THE UNITED STATES: 2000- 2014

ABSTRACT #36 REF: 11002600

Introduction: Changes in oropharyngeal cancer are occurring amongst anatomical subsites. Purpose was to study recent data to examine oropharyngeal cancer incidence, demographic trends, and shifts in operative management and survival.

Methods: Surveillance, Epidemiology, and End Results database (2000 -2014) was employed to identify patients with oropharyngeal cancers. Incidence, demographics, cancer-related data, site-specific therapy, and survival were evaluated. Age adjusted relative rate of survival was calculated for each site-specific therapy.

Results: 140,867 cases of oral cavity and pharynx cancer were diagnosed in the United States during study period. Majority of patients identified as white (n=116,389; 82.6%) men (n=97,769; 69.4%) between 55-59 years old (n=20,087; 14.3%). Cancer of the tongue was most common anatomical subsite reported (n=40,151; 28.5%), followed by tonsils (n=23,216; 16.5%), gum and other mouth cancer (n=19,451; 13.8%) and salivary glands (n=15,894; 11.3%). Most cancer diagnoses were confirmed by histological analysis (n=134,250, 97.0%) and had moderately differentiated (grade II) disease at diagnosis (n=48,479; 22.2%). Mortality attributable to oropharyngeal cancer occurred in 34,442 patients (31%). Among patients treated with surgery, a majority underwent subtotal or total resection (n=35,105; 45.5%). Relative age standardized survival with no therapy ranged from 1-year survival of 69.8% to 5-year survival of 44.8%. Partial or total removal of the primary site with an en bloc resection of other organs had the highest rate of 1-year (99.3%) and 5-year (95.5%) survival.

Conclusion: Patients are likely white men 55-59 years old suffering from cancer of the tongue. Subtotal or total resection was the most common procedure; partial or total removal of primary site and en bloc resection had highest 1-year and 5-year survival. Data provides information for surgical oncologists, otolaryngologists, and plastic surgeons to understand patients affected by the cancers and trends in surgical therapy. Information can be used to educate patients, and perform comprehensive informed consent.

SAFETY OF PHENYLEPHRINE INFUSION THROUGH PERIPHERAL INTRAVENOUS CATHETER IN THE OPERATING ROOM: A PILOT STUDY

ABSTRACT #37 REF: 10997311

INTRODUCTION:

The traditional approach for infusing vasopressors is via a centrally placed catheter, a procedure which can be associated with complications. In the operating room, phenylephrine infusion is frequently performed through peripheral intravenous catheter (PIV) to maintain or augment mean arterial pressure (MAP).

The aim of this study was to assess the safety of phenylephrine infusion through PIV, by determining the incidence of related complications (e.g., local tissue injury or extravasation).

METHODS:

A retrospective chart review of patients undergoing surgery was conducted over a 3 month period from October to December 2016. Intra-operative anesthesia data records were reviewed for patients undergoing vascular, spine, thoracic and abdominal procedures. A total of 300 records were reviewed.

RESULTS:

46 patients were noted to have phenylephrine (concentration 100 micrograms/ml) infused for a period of at least 4 hours through a PIV while receiving general anesthesia. All phenylephrine infusions were administered via 18 or 20 gauge PIV in the hand or forearm.

Complications were noted in only one thoracic patient post-operatively, with extravasation of phenylephrine and local superficial soft tissue injury (lateral wrist) requiring topical nitroglycerine paste. The incidence of complications noted with peripherally infused phenylephrine in these 46 patients was 0.02%.

CONCLUSION:

Peripheral administration of phenylephrine is a feasible and safe option to maintain or augment MAP in patients receiving general anesthesia in the operating room. With appropriate monitoring protocols, administration of phenylephrine (and potentially other vaso-active medications) through PIV at optimized concentrations should be considered an option in the critical care setting.

POTENTIAL NEW VARIABLES TO QUANTITATE STRESS IN FORWARD SURGICAL TEAMS

ABSTRACT #38 REF: 10984958

INTRODUCTION: US Army Forward Surgical Teams (FSTs) perform resuscitative surgery under extreme mental and physical stress, the magnitude of which is difficult to quantitate. Cardiac autonomic input, derived from heart rate complexity (HRC), and physiologic reserve measured by real-time plethysmography (Compensatory Reserve Measurement (CRM)), have separately shown superiority vs traditional vital signs for trauma triage and for predicting physiologic stress, but have never been evaluated together. To fill this gap, we test the hypothesis that HRC and CRM reflect exercise stress in FST personnel.

METHODS: In 34 soldiers before, during, and after 10 min of exhaustive exercise, heart rate (HR, b/min), cardiac output (CO, L/min), heart rate variability (HRV, root mean square of successive differences, msec) HRC (Sample Entropy, unitless), arterial pulse oximetry (SpO₂, %), and CRM (unitless), were measured with two non-invasive monitors; <http://www.osypkamed.com> and a device incorporating a proprietary, Army-developed, machine-learning algorithm. Data are M±SD and compared with paired t tests.

RESULTS: The population was 77% male, age 34±10yrs, 76±12kg, and 0-8 deployments. Resting HRC was 1.9±0.5, and decreased to 0.7±0.5 (p94% on room air). HRV changes were inconsistent and variable.

CONCLUSIONS: This is the first study to show exercise stress in healthy soldiers is associated with marked tachycardia, increased cardiac output and O₂ delivery, and decreases in CRM and HRC, but not HRV. The different HRC and CRM recoveries suggest multiple mechanisms compensate for the associated blood volume shifts.

MULTI-INSTITUTIONAL ASSESSMENT OF THE IMPACT OF RISK PREDICTION ON OPERATIVE DECISION MAKING

ABSTRACT #39 REF: 10981993

Introduction:

Risk prediction in medically complex patients is challenging, and previous studies suggest surgeons are inaccurate when compared to ACS NSQIP risk adjusted models. It is unknown if and how predictions of postoperative risk may influence operative decisions. We hypothesize that surgeons tend to overestimate risk and that decision to operate is associated with perception of risk and ones' confidence in such predictions.

Methods:

General surgeons at 2, urban, tertiary, academic medical centers participated in online assessment of seven complex, general surgery, clinical scenarios. Each participant estimated the chance of any morbidity and mortality, assessed their confidence in such predictions, and their comfort in not offering surgery when risks were high. Predictions were compared to risk-adjusted outcomes reported by the ACS NSQIP online calculator. The impact of risk estimates on operative decision and correlation between confidence in predictions and comfort in not offering surgery with operative decision were assessed.

Results:

106 Surgeons completed the assessment (69.3% response rate). Surgeons overestimated postoperative morbidity and mortality; only 11% of NSQIP predicted estimates fell within the 95% confidence intervals, and averaged 26-33% over NSQIP estimates. The decision to offer surgery was significantly associated with lower risk prediction in 86% (6/7) of the scenarios but with wide confidence intervals. Overall, surgeons who did not offer surgery estimated significantly higher risk than the surgeons who offered surgery, averaging a mean difference of 20.9% increase. There was no correlation between predictive confidence, comfort in not offering surgery, or comfort in pursuing palliation and the decision to offer surgery.

Conclusions:

In general, surgeons are less likely to offer surgery to patients when they perceive higher risk; however, there was wide variation in tolerance for risk. The surgeon's confidence in their predictions and comfort in not pursuing surgery did not correlate with operative decision.

TRANSFORMING GROWTH FACTOR- β -ACTIVATED KINASE 1 IS REQUIRED FOR ARTERIOVENOUS FISTULA MATURATION

ABSTRACT #40 REF: 10981673

Introduction: Transforming growth factor- β -activated kinase 1 (TAK1) plays important roles in the regulation of extracellular matrix (ECM) production and deposition as well as inflammatory signaling and prevention of apoptosis; however the function of TAK1 in mechanotransduction in response to hemodynamic changes such as occur during AVF maturation is not well understood. Since deposition of ECM is critical to AVF maturation, we hypothesized that TAK1 is a critical regulator of AVF maturation.

Methods: Aortocaval fistulae were created via needle puncture in wild-type (WT) C57BL/6J mice. AVF diameter was serially assessed weekly by duplex ultrasound; AVF were harvested at days 7 or 21 for histological analysis using computerized morphometry, as well as qPCR and Western blot. Some mice were treated with either the TAK1 inhibitor 5Z-7-oxozeaenol (OZ, 0.5mg/kg/day, 7 days) or Lentiviral TAK1 ShRNA (1x 10⁸ pfu/ml; adventitial transduction). Mouse lung endothelial cells (MLEC) were exposed to laminar shear stress (3 or 20 dyne/cm², 1h); TAK1 signaling was detected by Western blot and immunofluorescence.

Results: TAK1 mRNA expression was increased at days 7 and 21 in AVF (2.0-fold; day 21; $p < 0.05$) compared with sham controls. In AVF treated with OZ there was reduced fistula diameter ($p < 0.01$) and wall thickness ($p < 0.05$) at day 21, as well as reduced collagen and fibronectin deposition ($p < 0.05$), compared to controls. TAK1 knockdown with ShRNA also showed reduced fistula diameter at day 21 ($p < 0.05$), compared to controls. MLEC exposed to arterial magnitudes of laminar shear stress showed increased TAK1 phosphorylation and downstream signaling ($p < 0.05$) compared to MLEC exposed to venous shear stress or static conditions, which was reduced in cells either pretreated with OZ ($p < 0.0001$) or transfected with TAK1 ShRNA ($p < 0.05$).

Conclusions: TAK1 regulates ECM production during AVF maturation. Strategies to alter TAK1 function in vivo may be a novel therapeutic approach to improve AVF maturation.

IN THE SUPER-OBESE, BILIOPANCREATIC DIVERSION/DUODENAL SWITCH (BPD/DS) ELIMINATES VARIATION BY SEX OF OBESITY CO-MORBIDITY RESOLUTION BUT NOT WEIGHT AND BMI: ANALYSIS OF 1,673 PATIENTS

ABSTRACT #41 REF: 10981201

Introduction: Previous investigations identified differences in weight and clinical characteristics between obese women and men. However, in the medically fragile super-obese, whether or not post-operative responses to BPD/DS also vary by sex is unknown.

Objective: To identify variations in outcomes between women and men who underwent BPD/DS.

Methods: Pre-operative and follow-up data at 2, 6, 12, 18 and 24 months after surgery on 1,673 BPD/DS patients from the Surgical Review Corporation's BOLD database was analyzed retrospectively in two groups: Women (n=1,217) and Men (n=456). Data included weight, BMI, and 29 weight-related medical conditions. Continuous variables were analyzed using ANOVA with baseline and treatment in the model. Dichotomous variables were examined by a general linear model with baseline and treatment in the model and modified for binomial distribution.

Results: At baseline and 12 months ($p < 0.0001$), and 24 months ($p < 0.01$), male weight and BMI were higher than female. Baseline female abdominal panniculitis, asthma, cholelithiasis, GERD, stress urinary incontinence, depression, fibromyalgia ($p < 0.01$) and mental health diagnosis ($p < 0.05$) (n=8) were higher than were those characteristics among men. Male alcohol use, congestive heart failure, hypertension, ischemic heart disease, dyslipidemia, obstructive sleep apnea, diabetes, gout ($p < 0.01$), liver disease and unemployment ($p < 0.05$) (n=10) were higher than female. At 12 months, male sleep apnea, alcohol use, and gout remained significantly higher, as did female panniculitis, asthma, mental health diagnosis, depression, psychologic impairment, and stress incontinence. At 24 months, only stress urinary incontinence varied by sex.

Conclusions: Pre-operative female versus male variations in weight and BMI remain significant after BPD/DS. However, the eighteen obesity co-morbidities that varied by sex pre-operatively were reduced to nine at twelve months following BPD/DS and were eliminated, except for stress urinary incontinence, by 24 months. Among the super-obese, in long-term outcomes men and women benefit equally from BPD/DS.

PROCESS REDESIGN RESULTS IN IMPROVED CLINIC ACCESS, PATIENT THROUGHPUT AND NET REVENUE FOR ROUDEBUSH VAMC UROLOGY CLINIC

ABSTRACT #42 REF: 10980665

INTRODUCTION AND OBJECTIVES: Access to the Veterans Administration Medical Center(VAMC) continues to be a major issue. An understanding of how veterans access and flow through the clinic will provide opportunities for process improvement. Our objective was to use a LEAN/Six Sigma approach to identify opportunities to increase capacity and improve access, to provide more timely and efficient care.

METHODS: The Urology clinic at the Indianapolis Roudebush VAMC annually reviews 3,400 new consults and completes 12,000 patient visits. To improve access to clinic procedures, a multifunctional team performed a three-day rapid improvement project focused on all processes from registration to check out. The Six Sigma-DMAIC approach was applied. We also used many Lean/Six Sigma tools, such as, process mapping, fishbone diagrams, 5 Why's, 7 Ways, ANOVA analysis, and Impact Effort Grids. Multiple redundant steps and inefficiencies were identified and addressed. Timed studies were performed prior to, at 6 months and 12 months to assess sustainability.

RESULTS: Time study analysis revealed an initial state of 100 minutes for cystoscopy visit and 106 minutes for prostate biopsy visit. After initiating the process improvement changes time study analysis revealed 29 minutes for cystoscopy visit and 45 minutes for prostate biopsy, respectively. Prior to initiating this process improvement, the third next availability for cystoscopy and prostate biopsy was 38 and 35 days, respectively. After initiating the process improvement changes the third next appointment availability for cystoscopy and prostate biopsy fell to 14 and 19 days, respectively. The increase availability provided by increase efficiency lead to fewer non-VA referrals resulting in a predicted a 5-million-dollar annual revenue swing for the clinic.

CONCLUSIONS: Process redesign resulted in dramatic improvements in access, efficiencies of visit and financial savings. Source of Funding: VAMC Staff Support

MY TRAUMA PATIENT DIED FROM SYPHILIS?

ABSTRACT #43 REF: 10978442

Syphilis is caused by the spirochete *Treponema pallidum*. There are four stages of an untreated syphilis infection: primary, secondary, latent and tertiary. Tertiary syphilis is when neurologic or cardiac symptoms can occur or patients may have non cancerous growths called gummas.

A 46 year old man with hepatitis C arrived after having crashed his motorcycle. His multiple injuries included a pelvic and left humerus fracture and small subarachnoid hemorrhage. He was admitted to the SICU after being in the emergency room for 1 hour. Three hours after admission his telemetry strip showed ST elevation and an EKG confirmed a STEMI. Over the course of the day his cardiac declined. The next day he had a brief generalized tonic clonic seizure that resolved. He had no history of seizure but probably caused his crash. Shortly after his first seizure he had another during which he bradied down and coded, was in PEA for 30 seconds with ROSC after ACLS. The patient had continued decline and organ failure. Despite our continued efforts that patient died on hospital day 5.

Once the patient was in the SICU and was deemed to be terminal the organ procurement nurses got involved to assess if any of the patients organs could be used for transplant. An RPR screening test was sent per organ procurement protocol. It came back positive and the confirmatory test was also very positive. After reviewing this case extensively we determined that this patient ultimately died of tertiary syphilis causing cardiomyopathy and seizures.

GRIP STRENGTH AND WALK SPEED BUT NOT TIMED UP AND GO CORRELATE WITH TOTAL PSOAS AREA

ABSTRACT #44 REF: 10978336

Objective: The number of frail and sarcopenic patients requiring surgery is increasing as the geriatric population and life expectancy increases. There is a need for rapid and reliable objective data to help predict adverse post-operative outcomes and aid in counseling of frail and sarcopenic patients undergoing surgical procedures. The goal of our study was to compare the three most common measures of physical frailty to the known marker of sarcopenia and predictor of surgical outcomes; total psoas area (TPA) as obtained by computed tomographic scanning(CT)

Design: Prospective cohort study.

Setting: Academic hospital

Methods: A consecutive volunteer sample of patients age 40 or older undergoing CT scan. All patients underwent physical evaluation by grip strength(GS), walking speed(WS) and timed up and go(TUG). TPA was measured using standard quantitative morphometric technique. Correlation between the physical function tests with TPA was performed.

Results: A total of 252 patients underwent physical function assessment with 157 having abdominal CT scans available for TPA analysis. Paired t-test analysis revealed no statistical difference between right and left cross sectional areas of the psoas muscle. GS had a significant and the best correlation with TPA at all three levels measured (All levels $P < .0001$, Superior .49, Mid .59 and Inferior .62). WS too had significant but weaker correlation with TPA ($P < .01$, Mid $P = .026$, .18; Inferior $P = .007$, .22). Timed up and go was not found to correlate with TPA.

Conclusion: GS followed by WS was significantly correlated with TPA. The current study suggests simple objective measures of physical frailty may be used to assist in preoperative evaluation of surgical patients. GS and WS may be utilized to identify frail and sarcopenic patients preoperatively without the need for CT scan and TPA analysis.

POSTOPERATIVE CASTING OF BELOW THE KNEE AMPUTATION REDUCES STUMP RELATED COMPLICATIONS

ABSTRACT #45 REF: 10977940

Introduction:

Although most elective BKAs are classified as clean surgery, the reported wound complication and surgical site infection (SSI) rates are higher than anticipated. The aim of this study was to compare the ability of two different dressing techniques to prevent BKA wound complications.

Methods:

We retrospectively identified patients who underwent BKA between 2000-2013 for uncorrectable lower extremity ischemia, severe infection or a combination of both and stratified them into 2 cohorts: those who received soft postoperative dressing with elastic bandage and knee immobilizer (EB-KI) and those who underwent thigh high postoperative casting (PC). Demographics and variables that could affect wound healing, dressing or rehabilitation were collected. The outcome measures were primary wound healing within 6 weeks and postoperative length of stay (LOS). Stump problems and the need for higher level amputation were also compared.

Results:

56 patients were analyzed, 30 patients received EB-KI and 26 PC. All patients were male with similar mean age and comorbid conditions, except more incontinent patients were in the EB-KI cohort, while more PC patients were taking therapeutic dose anticoagulation, and had better preoperative mobility status. Primary wound healing at 6 weeks was significantly better in the PC cohort (PC: 76% vs EB-KI: 53%; $P=.04$). Mean LOS was also shorter with PC (5 days vs 12 days $P=.01$). Stump trauma, infection and dehiscence occurred less frequently in the PC cohort ($P=.03$, $P=.03$, $P=.03$ respectively). Stump wound necrosis and the need for higher-level amputation was not different however. Correlation was found between PC and uncomplicated wound healing, shorter LOS and less stump injury

Conclusions:

While the number of conversions to a higher-level amputation in our cohorts remained the same, applying PC dressing to the fresh BKA stump reduced the number of complications and improved the LOS.

VARIATION IN NONSURGICAL SERVICES FOR CARPAL TUNNEL SYNDROME ACROSS A LARGE INTEGRATED HEALTHCARE SYSTEM

ABSTRACT #46 REF: 10977180

Introduction: There is a lack of strong evidence and guidance about the timing, duration, and type of nonoperative treatments and diagnostic tests for carpal tunnel syndrome (CTS) that may lead to practice variation. The aim of this study was to evaluate patient- and facility-level variation in the use of services for patients with CTS receiving care in the Veterans Health Administration (VHA), the largest integrated healthcare system in the US.

Methods: A national cohort of VHA patients newly diagnosed with CTS during fiscal year 2013 was divided into non-operative and operative treatment groups for comparison. We assessed use of five types of CTS-related services (electrodiagnostic studies [EDS], imaging, steroid injection, oral steroids, and therapeutic modalities) in the pre-diagnosis and post-diagnosis periods prior to any operative intervention at the patient and facility levels.

Results: Among 72,599 patients newly diagnosed with CTS, 5,666 (7.8%) received carpal tunnel release (CTR) within 12 months. The remaining 66,933 (92.2%) were in the non-operative group. EDS and therapeutic modalities were the most commonly utilized services after the index diagnosis and had large facility-level variation in utilization. At the facility level, the use of therapeutic modalities ranged from 0–93% in the operative group (mean 32%), compared to 1–67% (mean 30%) in the non-operative group. The use of EDS in the post-diagnosis period ranged from 0–100% (mean 59%) in the operative treatment group and 0–55% (mean 26%) in the non-operative group at the facility level.

Conclusions: There is considerable facility variation in the use of services for CTS among patients receiving operative and non-operative treatment. Research to inform development of more prescriptive clinical practice guidelines and quality improvement initiatives focused on shared decision-making for pre-surgical care may help to improve value and efficiency of surgical care as a whole.

INFLUENCE OF SMOKING, CO-MORBIDITY, AND SURGICAL APPROACH ON PATIENT OUTCOMES FOLLOWING ESOPHAGECTOMY: A NSQIP ANALYSIS OF 8,956 PATIENTS

ABSTRACT #47 REF: 10974229

Objectives

Many diverse clinical factors influence outcomes following esophagectomy. Some have advocated limiting surgical care for smokers. We investigated factors influencing esophagectomy outcomes, and specifically, the influence of smoking on outcomes following esophagectomy.

Methods

The NSQIP database (2005-2016) was used to study patient outcomes following esophagectomy. Multivariate regression analysis was performed to define clinical factors significantly influencing patient outcomes following esophagectomy.

Results

We studied 8,956 patients who underwent esophagectomy. Of these, 25.4% had smoking history. Smoking was associated with increased morbidity (47.7% vs. 43.8%, AOR: 1.25, P<0.001) (AOR: 2.42, P<0.001) (AOR: 1.53, P<0.001) (AOR: 1.37, P<0.001) (AOR: 1.53, P<0.001) (AOR: 1.37, P<0.001), albumin <3.0, ASA classification, and thoracic surgical approach. This suggests it would be prejudicial to limit surgical care among smokers; other multiple factors should be considered. This is the largest study to identify significant factors influencing morbidity and mortality following esophagectomy, it can be utilized to aid clinicians in patient optimization, selection, and procedural approach.

DIFFERENCE IN VENOUS THROMBOEMBOLISM RISK AFTER NONOPERATIVE MANAGEMENT OF BLUNT SPLEEN VS. LIVER TRAUMA

ABSTRACT #48 REF: 10973735

Background: Hypercoagulability and venous thromboembolism (VTE) are linked to post-splenectomy thrombocytosis. Despite increased use of nonoperative management (NOM) for blunt solid organ injury, no studies have compared VTE incidence after NOM of liver versus spleen injuries. We hypothesize that VTE rates are higher after NOM of blunt injury to the spleen, compared to the liver.

Methods: Adult patients with blunt trauma (n=1016) admitted to the intensive care unit (ICU) were retrospectively reviewed from 01/2010-01/2016. Incidence of VTE was compared between isolated blunt liver and spleen injuries, both overall and specifically after NOM. Significance was assessed at $p \leq 0.05$.

Results: Blunt liver or spleen injury was found in 773 patients (101 isolated liver, 88 isolated spleen, and 54 with both). Overall, the VTE rate was significantly higher after isolated blunt spleen injury vs isolated blunt liver injury (17.0% vs 7.9%, $p=0.045$). Groups were similar in age, gender, heart rate, systolic blood pressure, Glasgow Coma Scale score, base deficit, hematocrit, platelet count, Injury Severity Score, Greenfield Risk Assessment Profile score, hospital and intensive care unit length of stay, and delayed initiation of thromboprophylaxis ($>48h$) (all $p > 0.050$). Of these patients, NOM was used with 86 isolated liver injuries and 71 isolated spleen injuries. No difference was found in transfusion requirements, pelvic or leg fractures, or operative time (all $p > 0.200$). NOM of spleen injuries was also associated with a significantly higher incidence of VTE compared to NOM of liver injuries (9.9% vs. 2.3%, $p=0.043$), despite similar injury characteristics and severity (all $p > 0.800$). All pulmonary emboli (n=5) in the NOM group occurred in patients with isolated splenic injury ($p=0.012$).

Conclusions: Blunt spleen injury is associated with a higher incidence of VTE than blunt liver injury. This difference remains persistent in patients treated with NOM, providing evidence that splenic injury alone may induce a prothrombotic state.

CAV-1 REGULATES EPHB4-MEDIATED ARTERIOVENOUS FISTULA MATURATION

ABSTRACT #49 REF: 10973640

Introduction: Arteriovenous fistula (AVF) continues to be the most common access created for hemodialysis. However, many AVFs fail to mature, suggesting a need to improve AVF maturation. Caveolin1 (Cav-1) is the major scaffolding protein of caveolae, a distinct microdomain that serves as a flow-activated mechanosensor at the membrane of endothelial cells; Eph-B4 is the embryonic venous determinant.

We have previously shown that Cav-1 is a mechanism of Eph-B4-mediated vessel remodeling in the murine vein graft model. We have also shown that Eph-B4 expression increases during AVF maturation and Eph-B4 activity inhibits venous remodeling in the murine AVF model. Then we hypothesized that Cav-1 is a critical regulator of Eph-B4-mediated AVF maturation.

Methods: We used a mouse aortocaval fistula model. The venous AVF limb and control (sham) inferior vena cava (IVC) of wild-type C57BL/6 (WT) were compared for Cav-1 expression. AVFs of WT mice, Cav-1 knockout (KO) mice, Cav-1 endothelial reconstituted (RC) mice, and Eph-B4 heterozygous (Eph-B4 het) mice were analyzed. A Cav-1 scaffolding domain peptide (cavtratin) was administered to stimulate Cav-1 signaling; ephrinB2/Fc was used to stimulate Eph-B4 signaling. Vessel remodeling was assessed postoperatively by serial ultrasound measurements. AVFs were harvested at day 21 and examined with histology.

Results: Both Cav-1 mRNA and protein were increased in the fistula veins compared to control veins. Cav-1 KO mice showed enhanced venous remodeling with increased eNOS activity compared with WT mice. Administration of cavtratin decreased the fistula wall thickness in WT mice as well as in Eph-B4 het mice. Inhibition of remodeling by ephrin-B2/Fc in WT mice was abolished in Cav-1 KO mice, but maintained in Cav-1 RC mice.

Conclusions: Endothelial Cav-1 is a critical regulator of Eph-B4-mediated AVF maturation. Manipulation of Cav-1 function may improve arteriovenous maturation within the fistula environment.

SERIOUS COMPLICATION RATES AFTER EGD WITH BIOPSY IN A COMMUNITY SETTING

ABSTRACT #50 REF: 10970170

Serious complication rates after EGD with biopsy in a community setting

Brian L. Johnson MD, Marc D. Basson MD PhD

Dept. of Surgery, University of North Dakota School of Medicine and the Health Sciences

Background: EGD biopsy is common. Complication rates of dilation and instrumentation during EGD are well documented. However, serious complications such as perforation secondary to EGD-driven mucosal biopsy are not well defined in the literature. This is important not only for clinically indicated procedures but also because there is increasing interest in mucosal sampling during clinical EGD for research. This requires a clear understanding of the increased risk that mucosal biopsy would add to a clinically indicated EGD. We therefore investigated the rates of serious complications secondary to EGD with biopsy in the community setting.

Methods: We specifically focused on patients undergoing outpatient EGD with biopsy, reasoning that serious complications would trigger hospitalization within 30 days. We studied 13,233 patients in two North Dakota community hospitals between 2011 and 2016. We used CPT and diagnostic codes to identify procedures and complications, and reviewed the records of patients with diagnostic or procedure code or admission within 30 days after the outpatient EGD with biopsy.

Results: 13,233 patients underwent planned outpatient EGD with biopsy. There were no complications of perforation. 449 patients were admitted for other reasons, including uncontrolled bleeding, requiring therapeutic EGD. 1 patient was hospitalized secondary to prolonged hypoxia. 1 patient was hospitalized for confined mucosal tear after esophageal polypectomy. 4 patients were admitted due to underlying gastric cancer.

Conclusions: EGD biopsy is extremely safe within community settings. Serious complications are likely to occur in less than 1 in 1,890 patients (.05%), and perforation in less than 1 in 13,233 (.007%) patients. The risk/benefit ratio for research-driven EGD biopsy is favorable if the research has scientific merit.

RISK FACTORS FOR DELAYED SYMPTOMATIC IMPROVEMENT IN WIDE-AWAKE CARPAL TUNNEL RELEASE

ABSTRACT #51 REF: 10970092

Introduction

Carpal tunnel syndrome is a common cause of upper extremity discomfort. Surgical release of the median nerve provides symptomatic relief in 70–90% of patients. Patients typically experience an immediate, substantial relief of pain, numbness, and night awakenings post-operatively, followed by slow, continued symptomatic improvement as inflammation resolves. The purpose of this study is to identify patients at risk for delayed symptomatic improvement after carpal tunnel release (CTR) in the veteran population.

Methods

Wide-awake, open CTRs performed from February 2013–April 2016 at R.L. Roudebush VA Medical Center (Indianapolis, IN) were retrospectively reviewed. Data was collected on patient demographics, comorbidities, medications, tobacco use, tourniquet use, operative time, and complications. Patients were divided into two cohorts based on early post-operative symptomatic improvement and risk factors were compared. Statistical analysis was performed using the Student's t-test and Fisher exact test in SPSS (SPSS Inc, Chicago, IL).

Results

A total of 304 CTRs were performed on 246 patients during the study period. The majority of patients were male (88.5%) and the mean age was 59.9 years. Two-hundred-thirty-four patients (92.1%) reported symptomatic improvement at 2-weeks post-operatively; 20 patients (7.9%) remained symptomatic. Fifty patients (16.4%) were lost to follow-up and were excluded.

Patients who remained symptomatic were statistically more likely to be older (average age 67.5 vs. 59.2 years, $p=0.006$) and to have had a post-operative complication (20.0% vs. 4.7%, $p=0.02$). There was no statistically significant difference in early symptomatic relief related to gender, diabetes, antithrombotic use, tobacco use, pre-operative median nerve motor latency, intra-operative tourniquet use, estimated blood loss, or operative time.

Conclusion

Most veterans experience early symptomatic improvement after CTR. Older patients and those who experience post-operative complications should be cautioned that recovery may be prolonged.

COMPARISON OF REPEAT FALLS, INTRACRANIAL HEMORRHAGE, AND STROKE RATE IN THE NATIONAL READMISSION DATABASE

ABSTRACT #52 REF: 10969010

Introduction

Falls among elderly patients on anticoagulation (AC) resulting in intracranial hemorrhage (ICH) are becoming increasingly common. Little is known about rates of repeat falls and repeat intracranial bleeding in this population. Additionally, it is uncertain the impact of anticoagulation on the likelihood of repeat intracranial bleeding following another fall.

Methods

The National Readmission Database was queried for elderly patients (age ≥ 65 years) admitted for traumatic fall and sustaining intracranial hemorrhage between 2013 and 2014. Patients were stratified by AC use or non-use and rates of repeat falls, repeat ICH, and mortality were determined. Stroke risk was estimated via patient's CHA2DS2-VASc score and annualized risk were compared to risk of repeat falling.

Results

A total of 23,262 patients who fell and developed ICH were analyzed. 1,539 (6.6%) of these patients suffered a second fall within 6 months; 869 of these repeat falls (56%) resulted in repeat intracranial hemorrhage. 82 of these patients were on AC at the time of their second fall (5.3%). There was no difference in rates of repeat intracranial hemorrhage between those taking AC versus those not taking AC ($p=0.64$). The mortality rate among those with repeat intracranial hemorrhage was 2.1%. When comparing annualized rates of stroke to repeat falling, falling outpaced the annualized stroke risk in all CHA2DS2-VASc score strata except for patients with a CHA2DS2-VASc score of 6.

Conclusion

Among patients who suffer a repeat fall within six months after an intracranial hemorrhage, a majority will suffer a second traumatic brain bleed, although the rate of rebleed did not differ between those taking or not taking AC. The risk of falling is greater than that of stroke for all CHA2DS2-VASc scores except 6.

IMPACT OF INFLAMMATORY BOWEL DISEASE ON COLORECTAL CANCER STAGE OF DISEASE AND SURVIVAL

ABSTRACT #53 REF: 10962757

Introduction: Inflammatory bowel disease (IBD) is associated with an increased risk of colorectal cancer (CRC). However, there are few data comparing CRC-related outcomes between IBD and non-IBD associated CRC.

Methods: Retrospective cohort study of patients with CRC identified from the Veteran Affairs (VA) Central Cancer Registry from 1998-2012 linked to national VA administrative claims to identify patients with IBD using a previously validated algorithm. The association between IBD status and stage of disease and overall risk of death were evaluated using multivariable logistic and Cox regression, respectively.

Results: Among 34,570 CRC patients (26,605 colon cancer; 7,965 rectal cancer), 217 had IBD (150 colon; 67 rectum). IBD patients were significantly younger for both colon (mean 68 ± 10.5 vs. 64 ± 13.3 years; $p < 0.001$) and rectal cancer (and 66 ± 10.6 vs. 60.2 ± 10.7 years; $p < 0.001$). IBD patients who developed rectal cancer were significantly more likely to present with locally advanced (stage II/III) or metastatic disease (73.1% vs 56.8%; $p = 0.007$), but there was no difference in stage among patients with colon cancer. This difference persisted after multivariable adjustment (overall—Odds Ratio [OR] 1.40, 95% Confidence Interval [1.03-1.90]; colon—OR 1.22 [0.84-1.78]; rectum—OR 2.04 [1.22-3.40]). Total colectomy was more commonly performed among IBD patients (colon—35.3% vs 4.0%; rectal—35.7% vs 5.0%). Overall, IBD was associated with a 50% increased risk of death (Hazard Ratio [HR] 1.50; [1.18-1.90]) primarily noted in patients with colon cancer (HR 1.80 [1.38-2.34]).

Conclusion: Although IBD is associated with more advanced stage at diagnosis for rectal cancer, it is associated with a worse survival primarily in patients with colon cancer. Further work is needed to better understand the reason for these observed differences between IBD and non-IBD patients and to better delineate the impact of endoscopic surveillance on CRC care and outcomes in IBD patients.

INHIBITION OF TGF-B IN TUMOR MICROENVIRONMENT CAN RESTORE MESOTHELIN CHIMERIC ANTIGEN RECEPTOR (CAR) T-CELL ACTIVITY IN PANCREATIC CANCER

ABSTRACT #54 REF: 10954584

Purpose: Pancreatic cancer (PC) cells are known to shield themselves from immunosurveillance by secreting inhibitory cytokines such as TGF-B. Using mesothelin, a differentiating antigen that is overexpressed in PC, we assessed the negative effect of the tumor microenvironment on CAR T cell-based immunotherapy and its reversal via depletion of TGF-B. **Methods:** Conditioned medium simulating the tumor microenvironment was obtained from 48h serum-free cultures of BxPC-3 human PC cells with and without TGF-B depletion using monoclonal antibody. Effector human T cells, harvested from the non-adherent fraction of PBMC, were cultured in the presence of CD3/CD28 and IL-2 and transfected with mesothelin-CAR vector. **Results:** When compared with mock-transfected T cells, ELISA co-culture assays of mesothelin-CAR T cells with BxPC-3 cells displayed increased secretion of IFN-g ($p<0.01$) and granzyme B ($p<0.01$), both of which are crucial for induction of target cell cytotoxicity. Cytotoxicity assays of BxPC-3 cells with mesothelin-CAR T cells demonstrated 60% ($p<0.01$) and 70% ($p<0.01$) specific lysis at E:T ratios of 10:1 and 20:1, respectively, with no lysis by mock-transfected cells. Addition of conditioned medium to mesothelin-CAR T/BxPC-3 cell co-cultures decreased IFN-g ($p<0.01$) and granzyme B ($p<0.01$) secretion, but levels of these cytokines were significantly, but incompletely, restored toward baseline with TGF-B depletion ($p<0.05$ for both). In addition, we observed a significant reduction of mesothelin-CAR T cell-induced cytotoxicity of BxPC-3 cells to 18% ($p<0.01$) and 29% ($p<0.05$) lysis at E:T ratios of 10:1 and 20:1, respectively, in the presence of conditioned medium. In line with the ELISA results, we observed significant blunting of this inhibition in TGF-B-depleted medium (47% and 55% lysis at 10:1 and 20:1, respectively; $p<0.05$). **Conclusions:** Significant reversal of tumor-derived immunosuppression may be achieved by blocking TGF-B in the local microenvironment, allowing for more effective cytotoxicity of mesothelin-engrafted CAR T cells and enhancing the potential for clinical application.

VEIN DIAMETER INCREASES INTRAOPERATIVELY DURING ARTERIOVENOUS FISTULA CREATION

ABSTRACT #55 REF: 10952360

INTRODUCTION: Autogenous arteriovenous fistula creation is the preferred method for hemodialysis access. Duplex-assessed Vein diameter (DVD) has been studied as a predictive factor for primary and secondary maturation. Prior investigations have demonstrated an association between DVD and successful maturation with vein mapping generally performed two weeks prior to surgery. As hemodynamic changes often occur in the intraoperative setting, this study investigates if there is a difference between preoperative and intraoperative DVD.

METHODS: We performed a single-center retrospective quality improvement analysis of patients undergoing arteriovenous fistula creation from 2012 to 2017. Preoperative venous duplex was performed two weeks prior to surgery using the GE Logic 8. Intra-operative venous duplex was performed using the SonoSite M-turbo. Regression analysis was performed to evaluate the difference between preoperative and intraoperative DVD.

RESULTS: We included 162 patients from 2012-2017 who underwent arteriovenous fistula creation. After exclusion of patients without pre- and intraoperative DVD measurements, 55 patients were included for analysis. Mean preoperative vein diameter was 3.5 +/- 1.1 mm and mean intraoperative vein diameter was 3.9 +/- 1.0 mm. This difference was significant ($p < 0.05$) and the mean diameter increase was 11.7 +/- 26.6 %.

CONCLUSIONS: Previous studies have demonstrated greater DVD is associated with improved primary and secondary patency. Our review demonstrates a significant increase in intraoperative DVD compared to preoperative DVD. As such, future studies investigating the role of DVD in terms of outcome should include intraoperative DVD measurements. This measurement will improve our operative decision making and our ability to predict fistula maturation.

WHO IS FOLLOWING WHO: AN ANALYSIS OF THE VA INSTAGRAM ACCOUNT

ABSTRACT #56 REF: 10937497

BACKGROUND:

Instagram is an internet-based text and photo-sharing application used by large organizations to connect to members. The Department of Veterans Affairs (VA) has an official Instagram account that follows local VA Medical Centers (VAMC) as well as Veteran Affiliated Groups (VAG). The online social media activities of the VA compared to other private hospital systems (PHS) has not been described.

METHODS:

The Official VA Instagram account was examined in November 2017. The total post, followers and followed accounts were collected. Individual VA Medical Centers and Veteran Affiliated Groups were grouped together. The top seventeen private hospital systems based on profit margin were search for Instagram accounts and examined in a similar fashion.

RESULTS:

The VA Instagram Account has 62,000 followers with 1925 posts and is following 48 other accounts. Of these, ten were individual VA Medical Centers and 19 were Veteran Affiliated Groups. Of the top seventeen private hospital systems, only ten had active Instagram accounts. There was a trend toward more total post (1539 +/- 3965 vs. 120 +/- 136 and 63 +/- 35, $p=0.28$, one-way ANOVA) and following accounts (489 +/- 675 vs. 257 +/- 544 and 74 +/- 76, $p=0.052$, one-way ANOVA) in VAG compared to PHS and VAMC respectively. Statistically there were more followers in VAG compared to PHS and VAMC (7563 +/- 11,106 vs. 1203 +/- 1401 and 247 +/- 276, $p=0.03$, $F=3.70$, one-way ANOVA).

CONCLUSIONS:

The VA appears to have a large digital foot print as it pertains to Instagram activity. Individual VAMCs lagged VAG and PHS in terms of posts and accounts followed. VAG appear to have a statistically larger follower base compared to the other groups illustrating the broad-based community rooted aspects of these organizations.

AGE IS NOT A CONTRAINDICATION TO COLORECTAL RESECTION IN OCTOGENARIANS

ABSTRACT #57 REF: 10927909

Introduction:

With the increase in life expectancy, there are a considerable number of patients above 80 years of age requiring surgical treatment for colorectal disease. This study compares surgical outcomes in octogenarian patients undergoing colorectal resection versus younger patients.

Methods:

Seventy six consecutive patients undergoing elective colorectal resections at the JJP VA Medical Center, Bronx, New York were included in the study. Age at surgery, history of smoking, BMI, haemoglobin, albumin, BUN, Creatinine, ASA status, postoperative hospital stay, complications and survival were recorded.

Results:

Of the 76 patients enrolled in the study, 25 (33%) were 80 years of age or older (mean age 84 years). The mean age of the younger patients was 63 years. There was no significant difference in proportion of patients with preoperative history of smoking, anemia, postoperative wound infection and other septic complications. The ASA status was nearly identical for both groups (2.96 vs 2.82 for elderly vs younger). Only one patient in the octogenarian group died in the 90-day postoperative period of myocardial infarction (4%), there were no deaths in the younger age group. Elderly patients had a significantly higher baseline BUN, Creatinine, lower BMI and serum albumin. The length of stay was significantly longer in the older patients (14 days vs 6, $p < 0.001$). Older patients had longer ICU stay (5 days vs 1, $p < 0.001$), time on the ventilator (25 hrs vs 0, $p < 0.05$) and non-septic complications (48% vs 8%, $p < 0.001$). The overall 1-year survival for the octogenarians was 92% and was 96% in the younger patients.

Conclusions:

Octogenarians have a longer postoperative ICU and hospital stay and higher complication rate. However most eventually recover from surgery and have a reasonable long-term survival rate of 82% at 2 years. Age alone should not be a contraindication to elective colorectal resection in octogenarians.

READMISSION RATE AND COST COMPARISON OF LAPAROSCOPIC CHOLECYSTECTOMY VERSUS PERCUTANEOUS CHOLECYSTOSTOMY: A PROPENSITY SCORE MATCHED ASSESSMENT OF THE NATIONAL READMISSION DATABASE

ABSTRACT #58 REF: 10861468

Introduction: Percutaneous cholecystostomy (PC) is an alternative to laparoscopic cholecystectomy (LC) for patients with acute cholecystitis (AC). The purpose of this study is to compare readmission rates and associated costs for patients undergoing PC relative to LC for acute cholecystitis.

Methods: The National Readmission Database was queried for all patients undergoing PC or LC for AC from 2013 through 2014. Readmission was defined as subsequent admission within 30 days following the index discharge. Multivariate logistic regression was used to identify predictors of readmission. Following 1:1 propensity score matching for baseline characteristics, outcomes of interest including 30-day readmission rates, length of stay at index admission, index admission cost, and total cost (including readmission) were analyzed. LC and PC models were fitted separately using a stepwise selection approach for predictors of readmission. Median and interquartile ranges are presented for non-normally distributed variables.

Results: After propensity score matching, there were no significant differences in patient characteristics between PC and LC. Patients undergoing PC were at increased rate for 30-day readmission relative to patients undergoing LC (adjusted OR 2.17, 95% CI 1.87-2.51). Patients who underwent PC had increased hospital length of stay (median (interquartile range, IQR)): 6 days (4-9 days) vs 5 days (3-8 days), $p < 0.0001$), decreased cost of index admission (\$44,026 (\$25,224-79,204) vs \$50,297 (\$32,692-\$80,977), $p < 0.0001$) and a trend towards decreased total cost for 30 day readmissions (\$50,469 (\$27,624-\$94,496) vs \$52,858 (\$33,746-\$80,977, $p = 0.068$).

Conclusions: The readmission database affords a unique opportunity to track patient admissions across healthcare systems. Patients who undergo percutaneous cholecystostomy are at increased risk for readmission, have longer hospital stays, incur decreased index admission costs, and have a trend towards lower total readmission costs.