

as described in this paper when performing aesthetic breast augmentation with implants.

P146. INCISIONAL NEGATIVE PRESSURE WOUND THERAPY IS PROTECTIVE OF POSTOPERATIVE CARDIOTHORACIC WOUND INFECTION

Kailtin A. Nguyen, BS¹, Theresa K. Webster, BS¹, Rachel A. Jenkins, BS¹, George A. Taylor, MD², Dylan L. Kahler, MD², Nicklaus S. Houston, BS¹, Andrew A. Gassman, MD², Christine M. Jones, MD²

¹Temple University School of Medicine, Philadelphia, PA, USA, ²Temple University Hospital, Philadelphia, PA, USA.

PURPOSE: Sternal wound infections are a rare but life-threatening complication of cardiothoracic surgery. Prior literature has supported the use of negative pressure wound therapy to decrease sternal wound infections and promote healing. This study sought to determine whether closed incision negative pressure therapy (ciNPT) reduced wound infection and improved outcomes in cardiothoracic surgery.

METHODS: A retrospective cohort study was performed including all adult patients who underwent nontraumatic cardiothoracic surgery at a single institution between 2016 and 2018 (n=1199). Patient characteristics, clinical variables, and surgical outcomes were compared between those who did and did not receive incisional negative pressure wound therapy intraoperatively. Multivariable regression analysis determined factors predictive or protective of the development of complications.

RESULTS: Incisional negative pressure wound therapy was used in 58.9% of patients. Patients who received this therapy were older with statistically higher rates of hyperlipidemia, statin, and antihypertensive use. The use of negative pressure wound therapy was found to significantly reduce rates of both wound infection (3.0% vs 6.3%, p = 0.01) and readmission for wound infection (0.7% vs 2.6%, p = 0.01). After controlling for confounding variables, negative pressure wound therapy was found to be a protective factor of surgical wound infection (OR 0.497, 95% confidence interval 0.262 - 0.945).

CONCLUSION: In the largest population studied to date, this study supported the expanded use of negative pressure therapy on sternal wound incisions to decrease infection rates.

P147. LOW PREOPERATIVE ALBUMIN LEVELS SIGNIFICANTLY INCREASE ODDS OF PANNICULECTOMY COMPLICATIONS: A NATIONAL SURGICAL QUALITY IMPROVEMENT PROGRAM (ACS-NSQIP) ANALYSIS

Victoria G. Zeyl, BA, Thor S. Stead, ScB, Raman Mehrzad, MD, MHL, MBA, Victor A. King, MD, Loree K. Kalliainen, MD, MA

Warren Alpert Medical School of Brown University, Providence, RI, USA.

PURPOSE: Panniculectomies are medically indicated after massive weight loss, which is often accomplished by gastric bypass. As most cases have an elective component, surgeons have the chance to optimize preoperative variables. We aim to investigate the role of pre-op albumin and BMI level on panniculectomy complications and post-op infections.

METHODS: Panniculectomy patients from January 2005-December 2019 were identified via CPT codes 15830 and 15847 from the American College of Surgeons National Surgical Quality Improvement Program (ACS-NSQIP). Multivariate logistic regression was performed on intra/postoperative bleeding and postoperative wound infection (WI) against preoperative serum albumin, diabetes status, age, body mass index (BMI), and smoking status. Odds ratios were adjusted for comorbidities. We established statistical significance at 99%.

RESULTS: Out of 3,202 patients, 111 sustained intra/postoperative bleeding and 60 suffered WI. Lower preoperative albumin levels and higher BMI were both significantly associated with increased likelihood of bleeding and WI (p<0.0001). For every 1g/dL decrease in albumin, patients' odds of bleeding increased 2.21 times, and odds of WI increased 4.52 times (p<0.0001). For every one-unit increase in BMI, patients' odds of bleeding increased 1.04 times, and odds of WI increased 1.06 times (p<0.0001). BMI and albumin were weakly correlated (-0.32) suggesting each had independent effects on complications.