**Abstracts**

**B306**

**SUPERIOR TRUNK VS INTERSCALENE BRACHIALPLEXUS BLOCK IN HUMERUS SURGERY: A RANDOMISEDCONTROLLED TRIAL**

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**Background and Aims** Ultrasound guided interscalene block (ISB) is a commonly performed block for shoulder and humerus surgery. Though it provides excellent analgesia, it is associated with hemidiaphragmatic paralysis and dyspnoea. Superior trunk block (ST) has been described wherein the local anaesthetic is deposited around the superior trunk (formed by fusion of C5, C6 nerve roots). The aim of this study was to determine if ST block provides similar analgesic efficacy with lesser incidence of diaphragmatic paresis in patients undergoing proximal humerus surgeries.

**Methods** A total of 65 patients scheduled to undergo proximal or mid shaft humerus surgery were randomised into 2 groups. Patients in group I received Superior Trunk (ST) block while those in group II received ISB block. Both the groups received 15 ml of 0.5% bupivacaine. Diaphragmatic excursion was noted at baseline and after 30 minutes after the block. Postoperatively numerical rating scale (NRS) and requirement of opioids was documented.

**Results** The incidence of paresis was statistically less in ST group. No patient in ST group had complete paresis, while 14% patients in ISB group suffered the same. Partial paresis was seen in 62% patient in ISB and 19% in ST block. The percentage reduction of movement was higher in ISB group vs ST group (0.72 +/- 0.09 vs 0.21 +/- 0.094). There was no difference in pain scores or the amount of opioid consumption in both groups.

**Conclusions** Superior trunk block provides similar analgesia comparable to the interscalene block for proximal/mid humerus surgery with preservation of diaphragmatic function.

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**THE EFFECT OF ACETAMINOPHEN AND TOTAL KNEE ARTHROPLASTY ON ENDOGENOUS PLASMAENDOCANNABINOID LEVELS**

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**Background and Aims** Acute post-operative pain remains a significant challenge despite multi-modal analgesia approach and novel analgesic pathways may improve upon existing strategies. The endocannabinoid pathway may facilitate analgesia, but there is limited data regarding the impact of surgery and existing therapies on the endocannabinoid pathway during the perioperative time period. The specific aims of the study were to 1) measure the inter-individual variability of blood endocannabinoid levels in patients scheduled for elective total knee arthroplasty, 2) determine the effect of oral acetaminophen on blood endocannabinoid levels, and 3) determine the effect of surgery on blood endocannabinoid levels.

**Methods** The study protocol was approved by the Mayo Clinic IRB and patients provided informed consent. 23 adult patients undergoing elective total knee arthroplasty were enrolled in a prospective observational cohort study and provided venous blood samples at three time points (before surgery, before surgery after intravenous acetaminophen, and 24 hours postoperative). We measured endocannabinoid levels at each time point using a validated liquid chromatograph/mass spectrometry assay. We analyzed the data using a mixed methods linear regression model with the subject as a random effect and each time point as a fixed effect. We considered a p value < 0.05 significant. (Figure 1)

**Results** Two endocannabinoids differed significantly after exposure to acetaminophen (O-AEA and 14,15-EET-EA). Nine markers were different after exposure to surgery and perioperative management (O-AEA, LEA, DH-g-LEA, DEA, 2-AG, AEA, 14,15-EET-EA, OLA, PEA). Figure 1

**Conclusions** Acetaminophen and surgery have an impact on endogenous endocannabinoid blood levels, which presents a novel therapeutic target for perioperative analgesia.

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**SELECT THE NEW ONQ SILVER SOAKER CATHETERVERSUS THE THORACIC EPIDURAL, THE ANCIENTGOLDEN STANDARD IN ERAS COLORECTAL SURGERY: APROSPECTIVE SUPERIORITY COHORT STUDY**

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**Background and Aims** The aim of this study was to compare ropivacaine-loaded catheters (intrabdominal and preperitoneal) with the former golden standard of ERAS guidelines, the thoracic epidural anesthesia (TEA) in postoperative pain management after laparoscopic colorectal surgery.

**Methods** This prospective cohort study included 48 patients eligible for colorectal surgery between July 2018 and November 2019. 25 patients received a TEA with ropivacaine/sufentanil (cohort 1), 23 received an intraoperative i.v. lidocaine infusion and 2 catheters at the end of surgery (cohort 2). The Regional Ethics Committee Leeuwarden, The Netherlands gave ethical approval. The primary outcome was length of stay (LOS). Opioid consumption, NRS pain scores, time in the PACU and mobilization into a chair, catheter dislocation,