Abstract EP197 Figure 1  Comparison of the respiratory events (%) per study groups

Conclusions Our results suggest that there is no association between BMI and severe respiratory-events after CD under neuraxial anesthesia and the use of long-acting neuraxial opioids. Extended admission to a high-acuity setting may not be necessary for the majority of these patients. In addition to BMI, the presence of patient comorbidities and physician assessment may prove valuable in determining the necessity for admission.

Initial Ethics Commity Approval Letter 22-0202-C

COMPARISON ADDUCTOR CANAL BLOCK COMBINED WITH PERIARTICULAR INfiltrATION AND PERIARTICULAR INFILTRATION ALONE AFTER TOTAL KNEE ARTHROPLASTY FOR PAIN CONTROL AND PATIENT SATISFACTION: A PROSPECTIVE OBSERVATIONAL CASE STUDY

1Selcuk Say*, 2Léonie Kenmegni Fogang. 1Medical, ULB, Chatelet, Belgium; 2Medical, ULB, Charleroi, Belgium

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Background and Aims Periarticular infiltration (PAI) and adductor canal block (ACB) have become popular modes of pain management after total knee arthroplasty. The purpose of our study is to evaluate the efficacy of ACB combined with PAI in comparison with PAI alone for pain control and patient satisfaction in patients undergoing primary total knee arthroplasty.

Methods This study is a prospective observational study that is conducted at a single university hospital in Belgium. Thirty six patients operated on for primary knee arthroplasty in the enhanced recovery pathway were included. Patients who received the ACB combined with PAI (n=18) were compared with those who received the PAI alone (n=18). The primary outcome is visual analog scale score (VAS) at recovery room to patient mobilization at 24 hours after surgery, whereas the secondary outcomes include satisfaction, opioid consumption, length of hospital stay and complications. The study is approved by the Ethics committee of CHU Charleroi, Belgium (CCB: B325201942327, on 27/11/2019).

Results In the ACB+PAI, the VAS are better than the group of PAI alone at 12 hours after surgery and at the mobilization (24 hours after surgery) (p- value=0.011; 0.001). The

morphe consumption is clearly reduced during this period in the group ACB+PAI (p-value=0.006; 0.009). Patient satisfaction is also better when BCA is added (p-value=0.008). The length of hospital stay is less long in the ACB+PAI group (p-value=0.007). No significant difference in complications.

Committee ethics file

Conclusions The adductor canal block provides better control of analgesia , with more satisfied patients compared to the PAI alone group.

IDENTIFICATION OF INTERFASCIAL PLANE USING INJECTION PRESSURE MONITORING AT THE NEEDLE TIP DURING ULTRASOUND GUIDED TAP BLOCK IN CADAVERS

1Roberto Dossi*, 2Christian Quadri, 3Xavier Capdevila, 1,4Andrea Saporito. 1Anesthesia, EOC, Bellinzona, Switzerland; 2Anesthesia, Clinica Sant’Anna, Lugano, Switzerland; 3Anesthesia, Montpellier University Hospital, Montpellier, France; 4Faculty of Biomedical Sciences, University of Lugano (USI), Lugano, Switzerland

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Application for ESRA Abstract Prizes: I apply as an Anesthesiologist (Aged 35 years old or less)

Background and Aims Consistency in needle tip positioning within interfascial planes while performing infiltrative blocks under ultrasound guidance may be difficult. Such planes go beyond the physical limits of common ultrasound machines. Aim of this pilot study was to understand if injection pressure monitoring at the needle tip can help to immediately and consistently identify an interfascial plane needle tip placement.

Methods We performed 4 ultrasound-guided TAP blocks on cadaver using a modified conventional peripheral nerve block
needle. The sensing needle contains a miniaturized pressure sensor floating 1 mm from the needle tip, connected to a measuring unit via an optical fibre. Injection-pressure measured at the needle tip was continuously recorded, while the needle was advanced toward the target and 0.9% saline was continuously injected via an electronic pump.

**Results**
A recognizable, recurrent three-peaks injection pressure pattern was identified (figure 1.), while advancing the needle through the abdominal wall, the pressure peaks being identified with the needle to fasciae contact. In four different blocks, a total of 12 peaks and 12 troughs were identified. The mean injection pressure (95%CI) of the peaks varied substantially from the mean injection pressure of the troughs, from 119.55 kPa (95% CI 87.3 to 151 kPa) to 30.99 kPa (95% CI 12.5 to 47.5 kPa), respectively. The peaks (troughs) arose from reproducible pressure curves and were related to the needle tip encountering the muscle fasciae.

**Conclusions**
The identified injection pressure pattern, together with ultrasound image, may help in determine real-time the needle tip position, while performing a TAP block.

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**EP200**  
**IMPACT OF LOCAL ANESTHETICS ON BONE SARCOMA: AN IN VITRO STUDY**  
1Konstantin Prosenz, 2Sarah Morice, 1José Aguirre, 3Didier Surdez, 4Gina Votta-Velis, 5Alain Borgeat. 1Anesthesiology, City Hospital Zurich, Zurich, Switzerland; 2Balgrist Campus, Balgrist University Hospital, Zurich, Switzerland; 3Anesthesiology, UIC Chicago, Chicago, USA; 4Anesthesiology, Campus University Zurich, Zürich, Switzerland  

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**Application for ESRA Abstract Prizes:** I apply as an Anesthesiologist (Aged 35 years old or less)

**Background and Aims**
Retrospective and clinical studies on patient undergoing cancer surgery suggested the perioperative use of local anesthetic drugs might improve the outcome. Previous publications indicated that lidocaine reduced cancer metastasis by inhibiting the tyrosine kinase enzyme Src. However, there is no data investigating the impact of lidocaine in non-epithelial cancer cells. The aim of this investigation was to explore in vitro the impact of lidocaine on cancer of mesenchymal origin. For this purpose, osteosarcoma and Ewing sarcoma cell lines were used.

**Methods**
Adhesion assays were performed by treating the cells for 48h compared to verteporfin in 6 well plates. Migration was assessed by the Boyden chamber migration during 48h. DMSO was used as control. Wound healing assays was performed during 48h and assessed with the MRI wound healing tool in Image J in cells being treated either with or without TNF-α. Src activity was evaluated by western blotting.

**Results**
Adhesion (figure 1), migration (figure 2) and wound healing (figure 3) were not influenced by the presence of lidocaine with or without stimulation with TNF-α. The addition of methylnaltrexone did not modify the results. Src activity was similar to the control and not increased by the addition of TNF-α.