

|                     | CTN<br>N = 52 | CON<br>N = 27 | P     |
|---------------------|---------------|---------------|-------|
| Catheter Leak Day 1 | 20            | 3             | 0.018 |

Abstract #36220 Figure 1 Results

|                                   | CTN<br>N = 52 | CON<br>N = 26 | p     |
|-----------------------------------|---------------|---------------|-------|
| Average Numeric Pain Scores Day 1 | 3.5 (SD 4.9)  | 3.6 (SD 2.8)  | 0.940 |

Abstract #36220 Figure 2 Pain Scores

| BMI Range                            | Leaking – CTN Group | Leaking – CON Group | P value |
|--------------------------------------|---------------------|---------------------|---------|
| BMI < 30<br>CTN n = 25<br>CON n = 13 | 7                   | 1                   | 0.072   |
| BMI 30-40<br>CTN n = 17<br>CON n = 7 | 5                   | 1                   | 0.629   |
| BMI 40+<br>CTN n = 10<br>CON n = 7   | 8                   | 1                   | 0.015   |

| STUDY                     | PARTICIPANTS | BMI INCLUSION   | LEAK REDUCTION | SIGNIFICANT P VALUE |
|---------------------------|--------------|-----------------|----------------|---------------------|
| Nogawa, et. al. (2018)    | 40           | <35             | 55%            | Yes                 |
| Hattamaru, et. al. (2022) | 60           | <30             | 60%            | Yes                 |
| Kim, et. al. (2021)       | 65           | <30             | 33.9%          | Yes                 |
| Yu, et. al. (2015)        | 60           | <30             | 46%            | Yes                 |
| Edwards, et. al. (2017)   | 109          | <35             | 1.9%           | No                  |
| Our study                 | 79           | No restrictions | 33%            | Yes                 |

Abstract #36220 Figure 3 BMI Comparison

**Conclusions** The reduction of leaking noted lower extremity continuous peripheral nerve blocks in obese patients can be reduced by utilizing an over the needle system. This prolongation could prevent opioid related complications and enhance rehabilitation.

**Attachment** PH-21-017 Approval Letter.pdf

#35962 **BILATERAL ERECTOR SPINAL PLANE BLOCK FOR EXPLORATORY LAPAROTOMY IN A SEPTIC PATIENT – CASE REPORT**

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**Please confirm that an ethics committee approval has been applied for or granted:** Not relevant (see information at the bottom of this page)

**Background and Aims** Epidural analgesia is a well-established technique that has commonly been regarded as the gold standard in perioperative pain management for open abdominal surgery. In patients presenting with sepsis there is a concern with possible dissemination of the infection, hemodynamic instability and coagulopathy development in the context of sepsis. With this in mind, we should have different options for pain control.

**Methods** A 65-year-old female patient was proposed for an urgent exploratory laparotomy due to anastomotic leak after an enterectomy. She presented with fever and hypotension and was receiving antibiotic therapy. Due to the concern of her condition worsening, it was decided not to perform an epidural block. In alternative, a bilateral erector spinal plane block was done before induction of total intravenous general anaesthesia.

**Results** The surgery lasted 2 hours, and the patient remained hemodynamically stable. As a multimodal analgesia strategy, she received dexamethasone, acetaminophen, ketorolac, and ketamine. At the end of the surgery, the patient woke up comfortable and only needed a small bolus of intravenous morphine in the immediate post-operative period. She was evaluated by an anesthesiologist at 24 hours, with only mild pain with movement.

**Conclusions** Peripheral nerve blocks (PNB) are a possible alternative when it's decided to not perform an epidural block for laparotomies. By doing so, we can achieve a multimodal analgesic strategy without the risks associated with neuraxial approaches. In this case, we were able to provide comfort for the patient by resorting to less common PNB.

#35862 **PERIARTICULAR VASOCONSTRICTOR INFILTRATION ULTRASOUND-GUIDED TECHNIQUE FOR TOTAL KNEE ARTHROPLASTY. A CASE SERIES**

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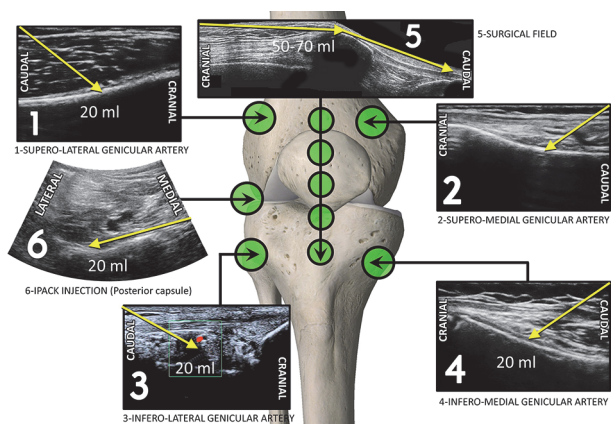
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**Application for ESRA Abstract Prizes:** I apply as an Anesthesiologist (Aged 35 years old or less)

**Background and Aims** Total knee arthroplasty accompanied by significant blood loss and severe postoperative pain. We present a novel technique called Periarticular Vasoconstrictor Infiltration, which involves an ultrasound-guided high-volume injection of a mixture of local anaesthetic and epinephrine around the knee joint aiming to provide effective postoperatively analgesia and intraoperative haemostasis without the need of a tourniquet while maintaining hemodynamic stability.

**Methods** This is retrospective observational study. Our main outcomes were intraoperative estimated blood loss and opioid consumption during the first 24h after surgery in patients who underwent TKA without a tourniquet using Periarticular Vasoconstrictor Infiltration technique in our hospital between November 2022 and February 2023. Patients who were chronic opioid users from our search were excluded.

**Results** Five patients met the inclusion criteria during the time frame, with a mean age of 72 years old (67-83). Intraoperative EBL was less than 100ml in all the five patients. None of the five patients required rescue opioids during the first 12h after surgery. The mean time for the first opioid request, was 17 hours (15-19) and the mean 24-hour dose of oral morphine equivalent was 20mg (10-20). All patients mobilize within 24h after surgery.



**Abstract #35862 Figure 1** Injection points in PVI and sonography of different approaches

**Conclusions** Periarticular Vasoconstrictor Infiltration technique minimizes intraoperative blood loss during TKA, provides effective pain relief and allows early mobilization. Further studies are needed to validate the efficacy of Periarticular Vasoconstrictor Infiltration against alternatively techniques.

#### #36429 PERICAPSULAR BLOCK FOR ANALGESIA IN SURGERY OF THE LOWER EXTREMITY

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**Please confirm that an ethics committee approval has been applied for or granted:** Yes: I'm uploading the Ethics Committee Approval as a PDF file with this abstract submission

**Background and Aims** The aim is to evaluate the antinociceptive efficacy of pericapsular blocks (PENG-Pericapsular Nerve Group or iliopsoas), residual motor block and functional recovery time after performing these blocks.

**Methods** Prospective study, comparing 30 patients scheduled for lower extremity surgery between May and June 2021: femoral osteosynthesis, total hip and knee arthroplasty. Data on the intensity of pain after performing three types of blocks were collected: PENG (pericapsular nerve block), iliofascial and femoral (active control) and comparison was made with cases where no block was performed (passive control). The variables analyzed were: intensity of pain prior to the intervention, type of block performed, degree of motor and sensory block at 24 hours, intensity of pain in the 24 hours postoperatively, duration of the analgesic effect, and need for rescue analgesia. In all cases the same anesthetic technique and perioperative multimodal analgesia were applied.

**Results** The PENG block was associated with less motor block at 24 hours. All of them presented a decrease in pain intensity 24 hours after performing the block compared to the previous one. There were no complications attributable to the technique. No significant differences were found between PENG and iliopsoas blocks. Compared with the femoral block, 50% of patients who underwent this block presented motor block 24 hours after the intervention. All of them also experienced a decrease in pain intensity at 24 hours.

**Conclusions** The use of pericapsular blocks in hip surgery allow an adequate analgesia that reduces the use of anti-inflammatories and opioids without affecting functional recovery.

**Attachment** INFORMED CONSENT.pdf

#### #36504 CASE REPORT: CONTINUOUS FEMORAL BLOCK FOR PATHOLOGICAL FRACTURE IN A PAEDIATRIC PATIENT

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**Please confirm that an ethics committee approval has been applied for or granted:** Not relevant (see information at the bottom of this page)

**Background and Aims** Pathological fractures in cancer patients cause severe pain that is difficult to control pharmacologically. Continuous regional nerve blocks play a definite role in controlling such pain. Continuous Femoral Nerve Block (cFNB) was described a safe and effective analgesic technique for hip fractures, especially in adult patients.

**Methods** A 7-year-old girl, weighing 23kg, ASA IV, with a palliative metastatic neuroblastoma and thrombocytopenia (71000 platelets) was scheduled for bilateral femoral neck fracture osteosynthesis at 2 different surgical timings, under the same anaesthesia technique. General anaesthesia was combined with ipsilateral cFNB performed under ultrasound guide, and a 9ml bolus of 0.2% ropivacaine was administered. Intraoperatively analgesia was completed with lidocaine (1mg/Kg), ketamine (0.3mg/Kg). Postoperatively a perfusion of 0.1% ropivacaine at 5ml/h was initiated and maintained until day 4 postoperative combined with acetaminophen (15ml/Kg) every 6 hours.