

#34558 **BILATERAL HIGH THORACIC ERECTOR SPINAE PLANE BLOCK (ESP) ANALGESIA FOR BILATERAL SINGLE STAGED SHOULDER ARTHROPLASTY – CASE REPORT**

¹Nataša Ilić*, ²Vladimir Vrsajkov. ¹Emergency center, Department of anesthesiology, Clinical Centre of Vojvodina, Serbia, Novi Sad, Serbia; ²Department of anesthesiology, Clinical centre of Vojvodina, Serbia, Novi Sad, Serbia

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Background and Aims Erector spinae plane block (ESPB) has been used successfully in chronic shoulder pain management, however ESPB has not been widely used as a postoperative analgesia in shoulder surgeries. The aim of this case presentation was to describe the use of bilateral high thoracic erector spinae plane block for provision of analgesia for bilateral single staged shoulder arthroplasty.

Methods 66 years old patient, ASA score II, underwent bilateral single staged shoulder arthroplasty due to sustained trauma. Bilateral ESPB at T2-T3 level was performed with 20ml of 0,375% levobupivacaine before standard general anesthesia induction for postoperative analgesia. Informed consent was obtained for reporting this case report. Scheduled postoperative patient analgesia was paracetamol 1g every 8h and ketorolac 30mg every 8h. Postoperative pain scores were recorded with numerical rating scale (NRS) on the 1st, 2nd, 4th, 8th, 16th, 24th and 48th hour after the procedure. Opioid consumption and adverse effects (nausea, vomiting, respiratory failure, hematoma) were also recorded.

Results The postoperative NRS scores: for the 1,2,4th hour were 0-2, for the 8th hour 8 and as a rescue analgesia for the breakthrough pain tramadol 100mg was administered, for the 16th 3, 24 and 48th hour were 0-1. Total 48 hours tramadol consumption was 100mg and no additional opioid. No side effects or complications related to the block were noticed.

Conclusions Ultrasound guided high thoracic erector spinae plane block can provide effective analgesia in shoulder surgery. As a phrenic nerve sparing block it can be alternative to routinely used interscalene block.

#36281 **CONTINUOUS ERECTOR SPINAE PLANE BLOCK FOR ANALGESIA IN A THORACOAXILLARY PENETRATING TRAUMA**

¹Paulo Correia*, ²Nelson Gomes, ²Sara Torres, ²Anabela Marques. ¹Anesthesiology, CHEDV, Santa Maria da Feira, Portugal; ²Anesthesiology, CHEDV, Porto, Portugal

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Background and Aims Erector spinae plane (ESP) block is an interfascial plane block. There are reports in patients undergoing spinal, breast, thoracic and abdominal surgeries with some conflicting results.

Results A 22 year old healthy woman suffered a penetrating trauma between the chest and armpit with a wooden stick.

An uneventfully general anaesthesia was performed to remove it and she went to the ward with continuous intravenous analgesia with drug infusion balloon (DIB). After surgery patient was conscious reporting severe pain and paresthesia in the median nerve territory despite multimodal analgesia. On the second postoperative day the intravenous infusion was stopped because nausea and vomiting. The pain, located mainly in the axilla, was controlled at rest but severe when moving, preventing rehabilitation therapy. It was performed an ultrasound-guided continuous ESP block at T4 level and 20 mL 0.2% Ropivacaine was injected. 8 mg intravenous dexamethasone was administered. There were no intercurrents and the patient reported great relief of pain. A perineural infusion of 5 mL/h 0.2% Ropivacaine was started. On the next days it was possible to do rehabilitation therapy and pain on mobilization progressively improved. On the seventh postoperative day the infusion was stopped because pain control was found at rest and in movement, without rescue analgesia.

Conclusions The mechanism of action of the ESP block is a matter of debate. It was evident that the bolus contributed significantly to pain control when it was administered and the continuous block facilitated the rehabilitation therapy.

#36220 **DECREASED LEAKING WITH OVER THE NEEDLE VS THROUGH THE NEEDLE CONTINUOUS POPLITEAL BLOCKS ESPECIALLY IN OBESE POPULATIONS**

Michael Burns*, Joanna Brademeyer, Amanda Jansen. Nurse Anesthesia, Webster University, St. Louis, USA

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Background and Aims Continuous peripheral nerve blocks remain the minority technique included in ERAS protocols to decrease opioid requirements. One common deterrent to the placement of continuous modalities are cost and questionable longevity of these blocks due to leaking and migration. The current literature is lacking in the incidence of leaking especially among obese patient populations. One prevailing thought is the method in which these catheters are placed is flawed: by inserting the catheter through the needle, the diameter differences between the catheter and puncture site contributes to its leaking versus over the needle. The aim of this study is to evaluate the rate of leaking without BMI restrictions comparing over the needle to through the needle catheters in highly mobile lower extremity blocks.

Methods Retrospective chart review of 79 patients that received a continuous popliteal nerve block without exclusions to BMI utilizing either the Pajunk-E cath echogenic the over the needle (CON) or Halyard T-Block continuous echogenic through the needle (CTN) techniques as part of their ERAS care.

Results Subjects that received CON catheters experienced a reduced rate (average 11.1%) of leaking as compared to the CTN group with (38.46%) with a p-value of 0.018. The impact of BMI resulted with a higher rate of leaking in the CTN of 80% and CON had 14.3% with a p-value of 0.015.

	CTN N = 52	CON N = 27	P
Catheter Leak Day 1	20	3	0.018

Abstract #36220 Figure 1 Results

	CTN N = 52	CON 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 CTN n = 25 CON n = 13	7	1	0.072
BMI 30-40 CTN n = 17 CON n = 7	5	1	0.629
BMI 40+ CTN n = 10 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**

¹Beatriz Xavier*, ²Susana Maia, ²Marta G Pereira, ²Joana Barros, ²Cristina Sousa. *Anesthesiology, Centro Hospitalar de Trás-os-Montes e Alto Douro, Peso da Régua, Portugal; Anesthesiology, Centro Hospitalar de Trás-os-Montes e Alto Douro, Vila Real, Portugal*

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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 anesthesia.

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**

¹Maria Paz Sebastian*, ²Vicente Roques. ¹Anaesthetics, Royal National Orthopaedic Hospital, Stanmore, UK; ²Anaesthetics, Virgen the Arrixaca, Murcia, Spain

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