

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

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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**

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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**

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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.