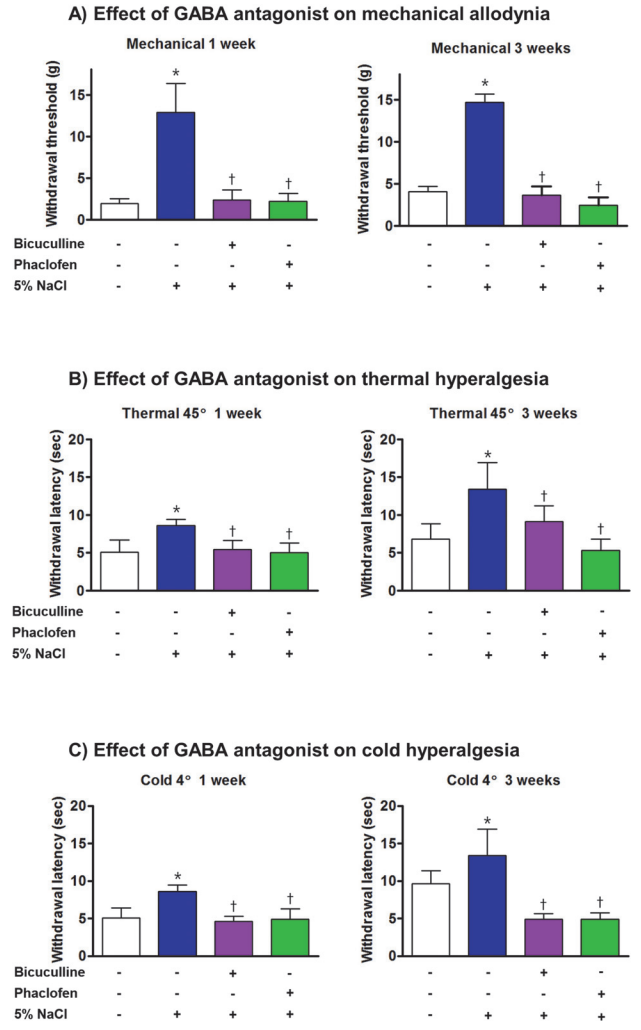

Abstract EP122 Figure 3

Methods A spinal nerve ligation (SNL, left L5, and L6) model was used to induce neuropathic pain in rats weighing 250–300 g. One week after implantation of the intrathecal catheter, different concentrations of NaCl were injected intrathecally into the rats. Behavioral tests (von Frey filaments, hot-plate, and cold-plate tests) were used to derive the results at baseline, 30 minutes, 2 hour, 1 day, and 1 week. After the same preparation, the rats were randomly divided into four groups of 10: the control group, hypertonic group, bicuculline group, and phaclofen group. Behavioral tests were then performed at weeks 1 and 3 after each drug administration, which followed the administration of intrathecal 5% NaCl. This study was reviewed and apporoved by the Institutional Animal Care and Use Committee Asan Institute for Life Sciences.

Results Using more than 5% NaCl in the rats induced mechanical allodynia and thermal hyperalgesia has a significant therapeutic effect. Moreover, more than 5% NaCl showed a partial time- and dose-dependent antinociceptive effect on cold hyperalgesia. Pretreatment of the γ-Aminobutyric Acid (GABA) receptor antagonist inhibited the antinociceptive effect of hypertonic saline in the SNL rats.

Conclusions Intrathecally injected hypertonic saline is effective at concentrations greater than 5% for treating neuropathic pain, and its effects may be associated with the GABAA and GABAB receptors.

EP123 COMPARISON OF PERICAPSULAR NERVE GROUP (PENG) BLOCK WITH SUPRAINGUINAL FASCIA ILIACA COMPARTMENT BLOCK (FICB) ON DYNAMIC PAIN IN PATIENTS WITH HIP FRACTURES: A PROSPECTIVE RANDOMIZED CONTROLLED TRIAL

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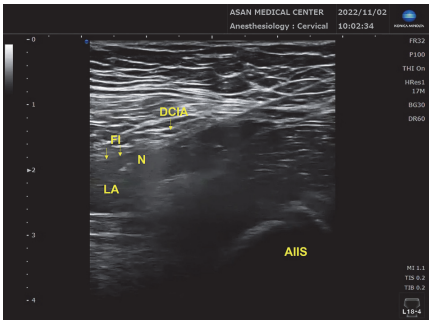
Background and Aims This study aimed to compare the effect of the pericapsular nerve group (PENG) block with suprainguinal fascia iliaca compartment block (FICB) on dynamic pain during the positioning for spinal anesthesia as well as postoperative pain and motor blockade.

Methods In this study, 79 patients undergoing surgery for hip fractures with baseline pain scores of ≥ 4 using the numerical rating scale (NRS) were randomly allocated to receive either an ultrasound-guided PENG block (n = 40) or a suprainguinal FICB (n = 39). The primary outcome was to assess the reduction of pain scores during hip flexion for spinal anesthesia 30 minutes after the peripheral nerve block. Secondary outcomes included the pain score at postoperative 6, 24, and 48 hours, cumulative opioid consumption up to postoperative 24 and 48 hours, postoperative intensity of motor blockade and cognitive dysfunction, and postoperative complications.

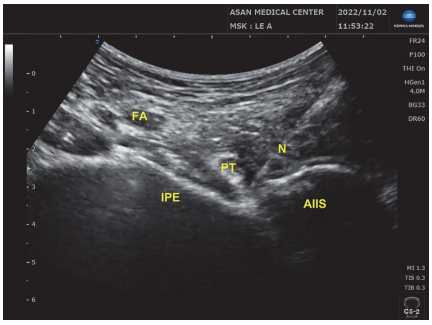
Results The study found that both FICB and PENG block reduced dynamic pain during hip flexion for spinal anesthesia, with no significant difference between the two groups (- 2.90 ± 2.52 vs. – 3.08 ± 2.43; P = 0.75). There was also no significant difference between the two groups in pain scores (static and dynamic) at 6, 24, and 48 hours postoperatively, intensity of motor blockade, time to ambulation, or other outcomes.

Abstract EP123 Table 1 Characteristics of the two groups

Group	FICB Group (n = 39)	PENG group (n = 40)	P value
Before blocks (baseline)			
NRS score	7.56 ± 1.93	7.95 ± 1.83	0.36
Hip flexion (0, no; 1, yes)	19 (48.7 %)	13 (32.5 %)	0.14
Mini-Mental State Examination score	25.30 ± 2.99	25.38 ± 4.13	0.92
30 minutes after blocks			
Delta NRS score	-2.90 ± 2.52	-3.08 ± 2.43	0.75
Hip flexion (0, no; 1, yes)	19 (48.7 %)	23 (57.5 %)	0.43
NRS score (during position)	6.10 ± 2.42	5.75 ± 2.86	0.56
Postoperative (6 hours)			
NRS score (static)	2.28 ± 2.25	2.18 ± 1.78	0.81
NRS score (dynamic)	3.90 ± 2.65	3.78 ± 2.01	0.82
Bromage motor blockade score	1 [1 - 2]	1 [1 - 2]	0.40
Postoperative (24 hours)			
NRS score (static)	2.97 ± 2.47	2.40 ± 1.84	0.24
NRS score (dynamic)	5.10 ± 2.66	4.73 ± 2.43	0.51
Bromage motor blockade score	1 [0 - 2]	1 [1 - 2]	0.94
Postoperative (48 hours)			
NRS score (static)	1.92 ± 1.42	2.10 ± 1.45	0.59
NRS score (dynamic)	3.21 ± 2.02	3.45 ± 2.04	0.59
Bromage motor blockade score	0 [0 - 1]	0 [0 - 0]	0.32
1st 24-hour opioid	33.12 ± 23.98	33.28 ± 18.61	0.97
2nd 24-hour opioid	22.81 ± 19.13	29.32 ± 22.46	0.17
Cumulative 48-hour opioid	55.92 ± 39.56	62.60 ± 35.39	0.43
Time to ambulation (hours)	26.5 [21.8 - 44.3]	24.3 [20.8 - 46.5]	0.54
Delta Mini-Mental State Examination score	18 (54.6 %)	12 (41.4 %)	0.30
Hospital stays	5 [5 - 7]	5 [4 - 6.5]	0.80
Postoperative complications			
Respiratory	8 (20.5 %)	5 (12.5 %)	0.34
Cardiovascular	0 (0.0 %)	0 (0.0 %)	-
Urogenital	1 (2.6 %)	2 (5.0 %)	>.99
Renal	1 (2.6 %)	2 (5.0 %)	0.49
Delirium	9 (23.1 %)	6 (15.0 %)	0.36



Abstract EP123 Figure 1 Suprainguinal fascia iliaca compartment block (FICB). AIIS, anterior inferior iliac spine; DCIA, deep circumflex iliac artery; FI, fascia iliaca; LA, local anesthetic; N, needle



Abstract EP123 Figure 2 Pericapsular nerve group (PENG) block. AIIS, anterior inferior iliac spine; FA, femoral artery; IPE, iliopubic eminence; N, needle; PT, psoas tendon

Conclusions In patients with hip fractures, the PENG block may provide a comparable analgesic effect to suprainguinal FICB on dynamic pain during position change for spinal anesthesia, with no difference in postoperative pain and motor blockade.

EP124 THE ROLE OF PECS BLOCKS IN THE ALLEVIATION OF POSTMASTECTOMY PAIN SYNDROME

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Background and Aims This study aimed at investigating the efficacy of PECS Blocks in alleviating symptoms in the immediate post-operative period and in reducing the occurrence of chronic pain following surgical treatment for breast cancer

Methods We enrolled 64 women who were randomized to the performance or not of PECS blocks. Evaluation of pain was based on the numerical pain rating scale (NRS) ranging from 0 to 10. In addition, the required supplemental morphine dose in the immediate post-operative period was compared between the two groups. All patients were evaluated at 3 and 6 months after surgery using the DN4 questionnaire for neuropathic pain

Results The incidence of postmastectomy pain syndrome (DN4≥4) in the PECS group was 28.1% at 3 months and 3.1% at 6 months, while in the non-PECS group it was 46.9% at 3 months and 28.1% at 6 months, with the difference between the groups being statistically significant at 6 months ($p=0.016$). The NRS values at three different time points (immediately postoperatively, at 12 and 24 hours) were higher in the non-PECS group compared with the PECS group and this difference was statistically significant at all three time points ($p<0.001$). Significant differences were found in supplemental morphine doses after discharge from PACU and for 24 hours, with the PECS group requiring 1.5 ± 2.48 mg and the non-PECS group requiring nearly four times more ($p < 0.01$)

Conclusions The peri-operative use of PECS blocks reduced acute postoperative pain, diminished postoperative morphine requirements and lowered the risk of development of chronic pain

Ethics Committee Approval

EP125 EVALUATION OF ULTRASOUND-GUIDED EXTERNAL OBLIQUE INTERCOSTAL PLANE BLOCK FOR POSTOPERATIVE ANALGESIA IN LAPAROSCOPIC CHOLECYSTECTOMY: A PROSPECTIVE, RANDOMIZED, CONTROLLED CLINICAL TRIAL

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10.1136/rapm-2023-ESRA.187

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

Background and Aims Laparoscopic cholecystectomy (LC) is a common minimally invasive surgery that reduces risks and complications. To manage postoperative pain in LC, different regional anesthesia techniques have been explored. One such technique is the External Oblique Intercostal Plane Block (EOIPB), which is relatively new and lacks clinical trial evidence. This study aimed to evaluate the effectiveness of EOIPB in managing postoperative pain after LC.

Methods This randomized, controlled trial was conducted from December 2022 to April 2023, with approval from the Institutional Review Board (IRB) and clinical trial registration (NCT05444985). ASA I-III patients aged 35-65 years scheduled for LC were included. All patients received standardized general anesthesia and analgesia. In the experimental group, an ultrasound-guided EOIPB was performed bilaterally using 30mL of 0.25% bupivacaine at the end of the surgery. Tramadol consumption, postoperative pain scores (numeric rating scale – NRS), time to first opioid dose, and the quality of recovery (QoR-15) scores were recorded.

Results Comparing the EOIP group and the control group, descriptive statistics showed no significant differences ($p>0.05$). However, the EOIP group had significantly higher cumulative tramadol consumption at all time points, except for the first hour ($p<0.001$). NRS scores were similar