

Background and Aims Gastrodin (a main bioactive component of herbal plant, *Gastrodia elata*) has been shown to have beneficial effects in preclinical models of CNS disorders and clinical trial for migraine. Inflammasome is a multimeric protein complex having a core of pattern recognition receptor and has been implicated in the development of neuroinflammatory diseases. Gastrodin has shown to modulate the activation of NLRP3 (NOD-like receptor protein 3) inflammasome. This study investigated examined the effects of gastrodin on neuropathic pain and the associated changes of activation of NLRP3 inflammasome at spinal level.

Methods Intrathecal catheter implantation and spinal nerve ligation (SNL) were used for drug administration and pain model in male Sprague-Dawley rats with approval of Ethical Committee (CNUHIACUC-21056). Anti-allodynic effect of gastrodin or MCC950 (NLRP3 inflammasome inhibitor) was measured by von Frey test. Changes of NLRP3, ASC, caspase-1 and IL-1 β and cellular expression were examined in the spinal cord and dorsal root ganglion.

Results Intrathecal injection of gastrodin significantly attenuated SNL-induced mechanical allodynia. MCC950 also showed anti-allodynic effect, but only about 50% of the maximum effect of gastrodin. Protein and mRNA levels of NLRP3 components and IL-1 β were upregulated in SNL animals compared to sham animals, which was significantly reduced by intrathecal treatment of gastrodin. NLRP3 inflammasome were expressed mostly in the neurons, and its fluorescent intensity was also reduced by intrathecal gastrodin.

Conclusions NLRP3 inflammasome was expressed mainly in the neurons at spinal level and greatly increased in SNL. Intrathecal gastrodin has anti-allodynic effect in SNL model partly through suppressing NLRP3 inflammasome and IL-1 β .

EP111 A COMPARATIVE STUDY BETWEEN TRANSFORAMINAL EPIDURAL STEROID INJECTION WITH HIGH VOLUME LUMBAR ERECTOR SPINAE PLANE BLOCK IN PATIENTS WITH LOW BACKACHE AND RADICULAR PAIN: A PROSPECTIVE RANDOMISED STUDY

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Background and Aims Transforaminal lumbar epidural steroid and erector spinae block has been used for treating lumbar radiculopathies. We aim to compare transforaminal epidural steroid injection with high-volume lumbar erector spinae block in patients with low backache and radicular pain.

Methods After obtaining institute ethical committee clearance and written informed consent, 60 patients aged between 18 to 50 years complaining of unilateral low backache were randomly allocated in 2 groups of 30 each- Group T and Group E. Group E received using ultrasound erector spinae block with 30 ml of 0.25% bupivacaine with 20 mg triamcinolone 20 mg whereas, Group T received TFESI using fluoroscopy with 2 ml of 0.25% bupivacaine with triamcinolone 20 mg. The primary objective of the study was to assess post-intervention NRS at 1 hr, 1 month and at 3 months. The secondary objective was to assess the modified Oswestry disability index (MODI), requirement of rescue analgesia.

Results The mean post NRS at 1 hr, 1 month and 3 months was significantly lower in group T (p of 0.001, 0.013 and 0.007 respectively). The requirement for rescue analgesics was

significantly higher in group E.(p<0.03). The MODI was significantly lower in both groups post-treatment. (p<0.001).

Conclusions Both TFSI and ESP are effective in low backache with radiculopathy. However, TFSI is superior to ESP block in better control of pain post-intervention and at follow-up.

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EP112 ANTERIOR QUADRATUS LUMBORUM BLOCK FOR ANALGESIA AFTER LIVING DONOR RENAL TRANSPLANTATION: A DOUBLE-BLINDED RANDOMIZED CONTROLLED TRIAL

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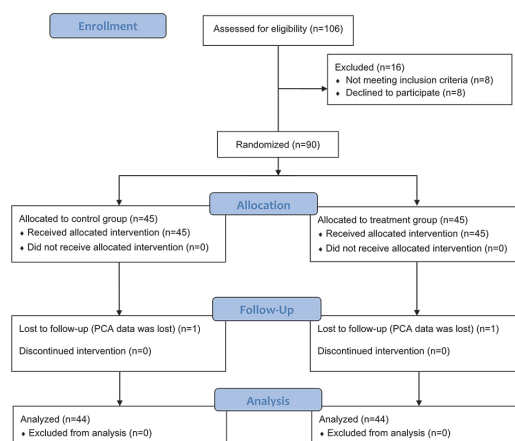
10.1136/rapm-2023-ESRA.174

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

Background and Aims Analgesic options are limited for post-operative pain after renal transplantation. This study aimed to investigate whether a unilateral anterior quadratus lumborum block would reduce postoperative opioid consumption after living donor renal transplantation in the context of multimodal analgesia.

Methods Eighty-eight adult patients undergoing living donor renal transplantation were randomly allocated to receive either unilateral anterior quadratus lumborum block (30ml ropivacaine 0.375%) or sham block (normal saline) on the operated side. All patients received multimodal analgesia including scheduled administration of acetaminophen and a fentanyl intravenous patient-controlled analgesia. Primary outcome was total opioid consumption for the first postoperative 24 hours (oral morphine milligram equivalent [MME]). Secondary outcomes included pain scores, time to first opioid, cutaneous distribution of sensory blockade, motor weakness, nausea/vomiting, quality of recovery scores, time to first ambulate, and hospital stays.

Results Total opioid consumption in the postoperative 24 hours was not significantly different between the intervention group and control group (median [IQR], 160.5 [78–249.8] vs. 187.5 [93–309] MME; median difference [95% CI], -27 [-78 to 24], P=0.285). There were no differences in secondary outcomes.



Abstract EP112 Figure 1 CONSORT flow diagram

Abstract EP112 Table 1 Patient demographics and baseline data

	Control (n=44)	Intervention (n=44)	Pvalue
Male sex, n (%)	31 (70.5)	25 (56.8)	0.268
Age, yr	51.5 (41.0-59.5)	53.5 (46.0-62.0)	0.416
Height, cm	166.2 ± 7.6	164.3 ± 7.5	0.243
Weight, kg	64.5 [57.0-71.0]	62.5 [55.0-74.0]	0.605
BMI,kgm ⁻²	22.4 [21.3-26.4]	24.1 [21.1-26.1]	0.997
ASA class, n (%)			0.084
II	8 (18.2)	3 (6.8)	
TTT	35 (79.5)	36 (81.8)	
IV	1 (2.3)	5 (11.4)	
Comorbidities, n (%)			
Hypertension	28 (63.6)	26(59.1)	0.827
Diabetes mellitus	9 (20.5)	12 (27.3)	0.617
Chronic liver disease	1 (2.3)	2 (4.5)	1.000
Pulmonary disease	2 (4.5)	1 (2.3)	1.000
Others	11 (25.0)	12 (27.3)	1.000
Operation time (min)	222.9 ± 47.7	217.6 ± 40.8	0.582
Anesthesia Lime (min)	277.4 ± 44.9	279.0 ± 46.8	0.874
Intraoperative remifentanyl consumption (µg)	961.5 [654-1450]	800 [704-1030.5]	0.367

Values are mean ± SD or median [IQR] or number (percentage).

Abbreviations: BMI, body mass index (calculated as weight in kilograms divided by height in metres squared); ASA, American Society of Anesthesiologists; SD, standard deviation; 1. QR, interquartile range.

Abstract EP112 Table 2 Postoperative analgesic consumptions, pain scores, and complications

	Control (n=44)	Intervention (n=44)	P value
Cumulative opioid consumption in 24h, mg oral morphine equivalent	187.5 (93-309)	160.5 (78-249.8)	0.285
Cumulative opioid consumption in 48h, mg oral morphine equivalent	249 (118.5-390)	196.5 (91.5-340.5)	0.367
Fentanyl consumption via intravenous PCA, µg			
0-6 hours	240 (90-320)	150 (50-260)	0.296*
6-12 hours	120 (40-260)	120 (50-180)	>0.999*
12-24 hours	160 (50-330)	190 (50-350)	>0.999*
24-48 hours	130 (50-400)	130 (10-370)	>0.999*
Time to first PCA attempt (min)	72 (60-90)	90 (66-105)	0.043
Nausea within 24h	16 (36.4)	17 (38.6)	1.000
Vomiting within 24h	2 (4.5)	4 (9.1)	0.672
Patients receiving antiemetics within 24h	1 (2.3)	2 (4.5)	1.000

Values are median (IQR) or number (percentage). PCA, patient-controlled analgesia.

*P value after the Bonferroni correction.

Conclusions Anterior quadratus lumborum block did not reduce opioid consumption after living donor renal transplantation in the setting of multimodal analgesia. These findings do not support the routine administration of the anterior quadratus lumborum in this surgical population.

EP113

ANALGESIC EFFECTS OF ULTRASOUND-GUIDED PREOPERATIVE POSTERIOR QUADRATUS LUMBORUM BLOCK IN LAPAROSCOPIC HEPATECTOMY: A PROSPECTIVE DOUBLE BLINDED RANDOMIZED CONTROLLED TRIAL

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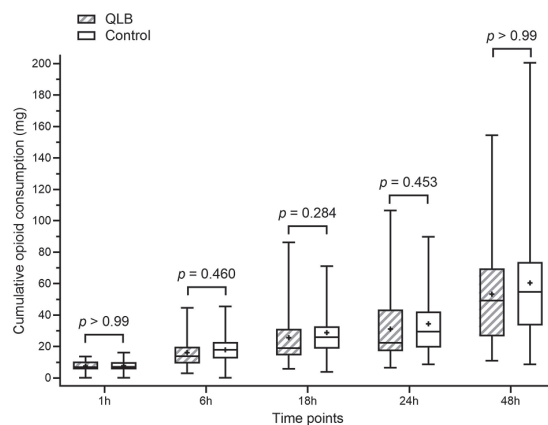
10.1136/rapm-2023-ESRA.175

Background and Aims Posterior quadratus lumborum block is accepted analgesic strategy in abdominal surgery. We examined whether bilateral, single-injection posterior quadratus lumborum block with ropivacaine could improve on postoperative analgesia compared to 0.9% saline in patients undergoing laparoscopic hepatectomy.

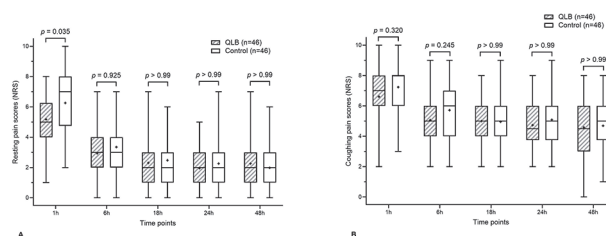
Methods Ninety-four patients were randomized to receive bilateral posterior quadratus lumborum block (20 mL of 0.375% ropivacaine on each side, 150 mg total) or control group (20 mL of 0.9% saline on each side). Primary outcome was cumulative opioid consumption during the first 24 h after surgery. Secondary outcomes included pain scores, intraoperative parameters and recovery parameters.

Results Mean cumulative opioid consumption during the first 24 h after surgery was 31.2 ± 22.4 mg in quadratus lumborum block group (n=46) and 34.5 ±

19.4 mg in control group (n=46, mean difference: -3.3 mg, 95% confidence interval, -12.0 to 5.4, p=0.453). Median resting pain score at 1 h post- surgery was significantly lower in quadratus lumborum block group (5 [4, 6.25] vs. 7 [4.75, 8] , p=0.035). There were no significant differences in resting or coughing pain scores at other time points and other secondary outcomes.



Abstract EP113 Figure 1 Cumulative opioid consumption converted to IV morphine equivalent dose (mg) during the 48 h after surgery. The solid lines in the box indicate the medians, symbol (+) indicates means, the boxes indicate interquartile ranges, and the whiskers indicate minimum to maximum. The individual P values result from a Bonferroni correction for multiple comparisons. Abbreviations: QLB, Quadratus lumborum block



Abstract EP113 Figure 2 Box and whiskers plot of the numeric rating scale (NRS) pain scores at rest (A) and coughing (B) during the 48 h after surgery. The solid lines in the box indicate the medians, symbol (+) indicates means, the boxes indicate interquartile ranges, and the whiskers indicate minimum to maximum. The individual P values result from a Bonferroni correction for multiple comparisons. Abbreviations: NRS, numerical rating scale; QLB, Quadratus lumborum block