

Lumbosacral erector spinae plane block for hip fractures in the elderly:a two-center case series and descriptive analysis

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SUPPLEMENTARY MATERIAL

Supplementary Table 1. Description of cases and their characteristics and interventions.

Sex, Age, ASA-PS	Surgical procedure	Comorbidity	Technique	Sedation	RASS score Median [Q1; Q3]
M, 86, III	Gamma femoral nail	Hypertension not well controlled, smoking, diabetes type II	US+ENS guided FNB ropivacaine 0.3% 10 mL, lumbar ESP (L1) + sacral (S1) ropivacaine 0.2% 20+20 mL	Midazolam 1 mg, ketamine in boluses 10 mg (total 40 mg)	0 [−1; 0]
F, 91, IV	Gamma femoral nail	Smoking, chronic heart coronaropathy, chronic pulmonary obstructive disease, obesity (BMI=32.33 kg/m ²)	US+ENS guided FNB ropivacaine 0.3% 10 mL, lumbar ESP (L1) + sacral (S1) ropivacaine 0.2% 20+20 mL	Midazolam 1 mg	0 [0; 1]
M, 79, III	Endoprosthesis	Diabetes mellitus type II, smoking, previous myocardial infraction, history of stroke with deficit of upper right limb	US+ENS guided FNB with ropivacaine 0.375% 10 mL, lumbar (L1) + sacral (S1) ESP with ropivacaine 0.2% 20+20 mL	Midazolam 1 mg, ketamine in boluses 10 mg (total 30 mg)	0 [0; 0]
F, 89, IV	Gamma femoral nail	Smoking, chronic heart coronaropathy, previous stroke, obesity (BMI=38.33% kg/m ²), severe dementia	US+ENS guided FNB with ropivacaine 0.5% 10 mL, lumbar (L1) + sacral (S1) ESP with ropivacaine 0.2% 25+25 mL	Midazolam 1 mg, ketamine (one 10 mg bolus)	0 [−0.75; −0.25]
F, 86, III	Endoprosthesis	Heart disease, hypertension, diabetes not well controlled	Femoral nerve US+ENS guided block, lumbar (L1) + sacral (S1) ESP with ropivacaine 0.2% 10+20+20 mL	Midazolam 1 mg, propofol 1 mg/kg/h	−1 [−1; −0.45]
M, 78, III	Gamma femoral nail	Diabetes mellitus type I, chronic heart disease with NYHA III	Femoral nerve US+ENS guided block, lumbar (L1) + sacral (S1) ESP with ropivacaine 0.2% 10+20+20 mL	Midazolam 1 mg	0 [0; −1]
F, 83, IV	Gamma femoral nail	Chronic heart disease with NYHA III, smoking, severe obesity, previous pneumonia	US+ENS guided FNB, lumbar (L1) + sacral (S1) ESP with ropivacaine 0.375% 10+20+20 mL	Midazolam 1 mg, propofol (30 mg bolus)	0 [0.25; −1]
F, 96, III	Gamma femoral nail	Chronic renal failure IV stage	US+ENS guided FNB, lumbar (L1) + sacral (S1) ESP with ropivacaine 0.2% 10+20+20 mL	Midazolam 1 mg	0 [0; 0]
M, 102, III	Gamma femoral nail	Hypertension not well controlled	US guided FNB, lumbar (L1) + sacral (S1) ESP with ropivacaine 0.2% 10+20+20 mL	Midazolam 1 mg, dexmedetomidine 1 mg/k/h	−1 [−1; −0.75]
M, 88, III	(Long) gamma femoral nail	Hypertension not well controlled, smoking, diabetes type II	US guided FNB, lumbar (L3) + sacral (S1) ESP with ropivacaine 0.375% 10+10+20 mL	Midazolam 1 mg, propofol 1 mg/k/h	−1 [−1; −0.75]
M, 92, III	Gamma femoral nail	Hypertension not well controlled, smoking, diabetes type II	US guided PENG block, lumbar (L3) + sacral (S1) ESP with ropivacaine 0.375% 20+10+20 mL/10+10+20 mL	Propofol boluses 10 mg (total 30 mg)	−1 [−1; −0.75]
F, 89, IV	Gamma femoral nail	Chronic heart disease NYHA III, chronic renal failure end-stage, several dementia	US guided FNB, lumbar (L3) + sacral (S1) ESP with ropivacaine 0.375% 10+10+20 mL	Midazolam 1 mg, propofol 1 mg/k/h	0 [−1; 0]
F, 94, III	Gamma femoral nail	Hypertension not well controlled, smoking, diabetes type II	US guided PENG block, lumbar (L3) + sacral (S1) ESP with ropivacaine 0.375% 20+10+20 mL	Propofol boluses of 10 mg (total 100 mg)	−1 [0; −0.15]
M, 91, III	Gamma femoral nail	Diabetes type II	US guided PENG block, lumbar (L3) + sacral (S1) ESP with ropivacaine 0.375% 20+10+20 mL	Propofol 10 mg boluses (total 50 mg)	−1 [−1; −0.5]

ASA-PS, American Society of Anesthesiologists – Physical Status; US, ultrasound; ENS, electrical neuro-stimulator; FNB, femoral nerve block; ESP, erector spinae plane; BMI, body mass index; NYHA, New York Heart Association; PENG, pericapsular nerve group; RASS, Richmond Agitation-Sedation Scale.

Supplementary Table 2. Pain scores and intraoperative parameters.

Sex, Age, ASA-PS	Technique	pNRS	iNRS	esNRS	12h-NRS	24h-NRS	MAP (Mean±SD)	HR (Mean±SD)	SpO₂ (Mean±SD)	Hypotension event
M, 86, III	US+ENS guided FNB ropivacaine 0.3% 10 mL, lumbar ESP (L1) + sacral (S1) ropivacaine 0.2% 20+20 mL	6	2	0	1	2	82.34±7.81	76.45±6.12	98.12±1.05	0
F, 91, IV	US+ENS guided FNB ropivacaine 0.3% 10 mL, lumbar ESP (L1) + sacral (S1) ropivacaine 0.2% 20+20 mL	4	1	0	0	2	74.56±9.21	68.90±5.34	96.45±1.85	1
M, 79, III	US+ENS guided FNB block with ropivacaine 0.375% 10 mL, lumbar (L1) + sacral (S1) ESP with ropivacaine 0.2% 20+20 mL	6	3	2	2	3	85.12±6.54	78.23±7.41	97.89±1.20	0
F, 89, IV	US+ENS guided FNB with ropivacaine 0.5% 10 mL, lumbar (L1) + sacral (S1) ESP with ropivacaine 0.2% 25+25 mL	5	2	1	1	2	79.45±8.67	72.14±6.98	95.67±2.15	1
F, 86, III	Femoral nerve US+ENS guided block, lumbar (L1) + sacral (S1) ESP with ropivacaine 0.2% 10+20+20 mL	7	2	0	1	2	68.23±10.12	62.34±5.67	98.45±0.95	0
M, 78, III	US+ENS guided FNB, lumbar (L1) + 0.2% 20+20 mL	5	1	1	2	2	76.89±7.45	65.78±4.89	97.12±1.45	0
F, 83, IV	US+ENS guided FNB, lumbar (L1) + sacral (S1) ESP with ropivacaine 0.375% 10+20+20 mL	6	2	1	1	2	65.45±11.23	59.89±6.12	94.56±2.34	1
F, 96, III	US+ENS guided FNB, lumbar (L1) + sacral (S1) ESP with ropivacaine 0.2% 10+20+20 mL	3	0	0	1	2	71.23±8.90	64.56±5.23	96.78±1.67	0
M, 102, III	US guided FNB, lumbar (L1) + sacral (S1) ESP With Ropivacaine 0.2% 10+20+20 mL	3	2	0	1	3	66.78±9.45	55.45±4.56	97.34±1.12	1
M, 88, III	US guided femoral nerve block, lumbar (L3) + sacral (S1) ESP with ropivacaine 0.375% 10+10+20 mL	5	2	1	1	3	70.12±8.56	61.23±5.78	96.89±1.45	0
M, 92, III	US guided PENG block, lumbar (L3) + sacral (S1) ESP with ropivacaine 0.375% 20+10+20 mL/10+10+20 mL	4	0	0	2	2	69.45±9.12	63.45±6.23	95.90±1.78	0
F, 89, IV	US guided FNB, lumbar (L3) + sacral (S1) ESP with ropivacaine 0.375% 10+10+20 mL	7	1	0	1	2	64.56±10.45	58.67±5.90	94.23±2.56	0
F, 94, III	US guided PENG block, lumbar (L3) + sacral (S1) ESP with ropivacaine 0.375% 20+10+20 mL	7	1	0	2	2	67.89±9.67	60.12±5.45	96.12±1.89	0
M, 91, III	US guided PENG block, lumbar (L3) + sacral (S1) ESP with ropivacaine 0.375% 20+10+20 mL	7	2	1	2	3	68.90±8.34	62.78±4.90	97.45±1.23	0

ASA-PS, American Society of Anesthesiologists – Physical Status; NRS, numeric rate scale; pNRS, preoperative NRS; iNRS, intraoperative NRS; esNRS, end-surgery; MAP, mean arterial pressure; HR, heart rate; ENS, electrical neuro-stimulator; US, ultrasound; PENG, pericapsular nerve group; FNB, femoral nerve block RASS, Richmond Agitation-Sedation Scale; SpO₂, peripheral saturation of oxygen.