

Conclusions Ultrasound-guided Sacral erector spinae plane block was found to be equivalent to caudal epidural block in terms of the total duration of analgesia, postoperative pain scores, postoperative analgesia requirement, and safety profile for children undergoing lower abdominal and lower limb surgeries under general anaesthesia

OP022 NO ASSOCIATION BETWEEN PLASMA A β (40–42) AND CSF NF LEVELS AND COGNITIVE IMPAIRMENT AND FRAILITY IN ELDERLY ORTHOPEDICS SURGERY PATIENTS: A CROSS-SECTIONAL STUDY

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Background and Aims Surgical and anesthetic trauma cause impaired frailty and cognitive dysfunction, especially in elderly patients. Recently, frailty has been linked to cognitive impairment on similar pathophysiological mechanisms (1,2). We aimed to investigate if such an association could be established between plasma A β and cerebrospinal fluid Nf proteins and clinical scores.

Methods After Institutional Review Board approval (KA 21/124), consecutive patients > 65 years, with informed consent, scheduled for lower extremity orthopedics surgery were enrolled. A sample size of 127 was calculated with a power of 80% at the %0.83 significance level Prior to surgery, patients were interviewed for validated Fried Frailty Index (Turkish version) (3) and Mini Mental State Examination (MMSE). Additionally, the venous blood sampling was performed for plasma neuron-specific enolase (NSE), and amyloid β protein 40-42 (A β 1-40/42). On the day of surgery, we collected lumbar CSF during spinal anesthesia for analysis of neurofilament light/heavy chain (Nf-L/H) and brain-derived neurotrophic factor (BDNF). MMSE and frailty were evaluated at postoperative 4th week.

Results 129 patients comprised the study. Older age was associated with significant increase in preoperative frailty and significant decrease in preoperative MMSE scores ($p=0.009$, $p=0.005$). Postoperative frailty and MMSE scores were higher in comparison to preoperative ones ($p<0.001$). No association was detected between plasma, CSF biochemicals and clinical scores.

Conclusions Frailty and cognitive impairment are reported to have common inflammatory markers, proteins, and genetics (4). However, the studied A β and neurofilament chain proteins aren't among them. Further research should explore this relationship.

OP023 THE SUITABILITY AND IMPACT OF INTRATHECAL FENTANYL ADDED TO LOW-DOSE BUPIVACAINE IN PATIENTS WITH PROXIMAL URETERAL STONES UNDERGOING TRANSURETERAL LITHOTRIPSY

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Background and Aims Despite the benefits of spinal anesthesia and the desire of anesthesiologists to perform it, due to the proximity of stone place in ureter and the possibility of pain, restlessness and occasional movements of the patient during surgery, it is less accepted by urologists. This study aimed to compare the effect of low-dose bupivacaine plus fentanyl administered intrathecally in patients undergoing transurethral lithotripsy (TUL).

Methods In this randomized, double-blinded clinical trial, from April 2021 to September 2021, 54 patients with proximal ureteral stones candidates for TUL, were enrolled. Patients were randomly divided into two groups; group A received bupivacaine 10mg with 0.5ml of normal saline and group B received bupivacaine 10mg plus 0.5ml (25 μ g) of intrathecal fentanyl.

Results The mean age was 66.14 ± 22.46 years and 74% were male. The total duration of surgery was 49.44 ± 14.46 minutes. Sensory block was adequate for surgery in all patients. The sensory block onset time, sensory block level, pain score, degree of relaxation, depth of motor block, occurrence of anesthesia complications, oxygen saturation and mean arterial blood pressure were not significantly different in two groups. However, the duration of motor block in the group B was longer than group A ($P<0.0001$). In addition, retropulsion was observed only in 5(18.5%) patients in the group A which in compare to group B was significantly higher ($P=0.019$).

Conclusions Low-dose bupivacaine with fentanyl 25 μ g provides adequate spinal anesthesia with lower retropulsion in patients with nephrolithiasis who are candidate for TUL.

OP024 SADDLE BLOCK VERSUS SPINAL ANAESTHESIA FOR TRANSURETHRAL RESECTION OF THE PROSTATE (TURP): A SYSTEMATIC REVIEW AND META-ANALYSIS

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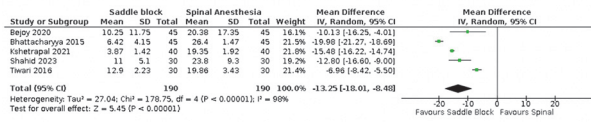
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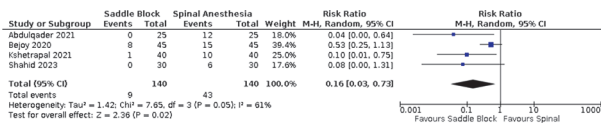
Background and Aims Spinal anaesthesia is a widely used technique for transurethral resection of the prostate (TURP). Nonetheless, a critical complication associated with spinal anaesthesia is hypotension. Saddle block, an alternative technique, is a potential solution to this problem. We performed a meta-analysis to compare spinal anaesthesia's safety with the saddle block for TURP.

Methods PubMed, EMBASE, Scopus, and Cochrane were searched for randomized controlled trials (RCTs) comparing the spinal anaesthesia to the saddle block for TURP. Outcomes assessed included haemodynamic changes, and vasopressor consumption. Statistical analyses were performed using RevMan 5.4. The risk of bias was appraised using the RoB-2 tool. Our study is registered in the PROSPERO under protocol number CRD42023417092.

Results Saddle block anaesthesia resulted in a significantly lower decrease in systolic blood pressure (Mean Difference -13.25mmHg; 95% CI -18.01 to -8.48mmHg; $p < 0.0001$; $I^2 = 98\%$; 5RCTs; 380 patients; figure 1) and lower vasopressor needs (Risk Ratio 0.16; 95% CI 0.03 to 0.73; $p = 0.02$; $I^2 = 61\%$; 4 RCTs; 280 patients; figure 2) when compared to spinal anaesthesia.



Abstract OP024 Figure 1 There was a lower decrease in systolic blood pressure with saddle block than with spinal anaesthesia



Abstract OP024 Figure 2 The use of vasopressors favoured the saddle block group

Conclusions According to our research, using saddle block anaesthesia as an alternative to spinal anaesthesia for TURP could potentially offer a more favorable haemodynamic profile and lower vasopressor consumption.

OP025 LOCAL ANESTHETIC NEUROTOXICITY AND ARACHNOIDITIS: A SYSTEMATIC REVIEW OF CASES

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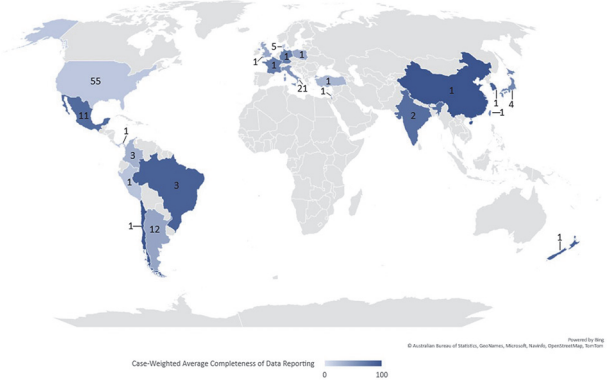
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Background and Aims Arachnoiditis is a rare but devastating disorder caused by a variety of insults, one purported to be local anesthetic (LA) neurotoxicity following neuraxial blockade. We examined reported cases of arachnoiditis attributed to LA neurotoxicity to characterize the strength of association.

Methods A systematic review was conducted according to Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines, and pre-registered through the Open Science Framework (<https://osf.io/b6txa>). The databases Medline, EMBASE, CINAHL, and Cochrane CENTRAL were searched (from inception to December 2022) for articles attributing arachnoiditis to LA following neuraxial anesthesia.



Abstract OP025 Figure 1 Geographical distribution of reported cases of arachnoiditis attributed to local anesthetic neurotoxicity and completeness of data reporting

Abstract OP025 Table 1 Combined spinal-epidural procedural characteristics

Author/Year/Country	Age/Sex	Pre-existing Neurological Signs and Symptoms	Pre-existing Medical Conditions	Setting	Site/Dissectant	Height/Level	Complicated insertion or injection (Patient/Parent/Physician/Staff)	Local Anesthetic/ Additives	Remarks
Bennett 2009 Mexico	76 f	None	None	GEN	Unknown	T10-L1	"Slow no evidence of 'pop' or resistance was observed, spinal anesthesia was attempted, which produced numbness of the right upper and lower limbs, equally symmetric, and thereafter general anesthesia was administered"	LID 2% 15mL, Epi, NaHCO3	Failed epidural and spinal anesthesia
	74 f	None	None	GEN	Unknown	T10-L1	"Accidental dural puncture 1st attempt at T10-L1 with 'resistance' noted on needle, upper limb, right lower limb"	BUP MB 15mg	Prophylactic ESP 5 mL
Chen 2023 China	79 f	None	"L5-S1 intervertebral disc degeneration"	CS	Isoline 0.2% ethiodol, 0.6% chlorhexidine, 0.4% metoprolol	L2-3	None	BUP MB 5% 2mL	"70% alcohol was used to wipe the neck of the ampoule, but no needle filter was used" Site clear with sterile glove
Haba 1995 Japan	50 f	None	Unknown	CS	Unknown	Unknown	"Sudden sharp pain sensation resembling that to the leg and suffered from neck pain shortly after the lower back to the calf during epidural needle insertion"	None	Epidural insertion abandoned following sudden pain, spinal inserted for possible emergent CS
Held 2011 Japan	70 f	None	None	CS	Unknown	L1-2	None	BUP 2% Morphine, Sufentanil	
Seifalaki 2013 Turkey	39 f	None	None	CS	Unknown	L3-4	None	BUP 2% 2.4mL	
	39 f	None	None	CS	Unknown	L3-4	None	L-BUP 5mL	

Results We screened 1158 studies and 38 met inclusion criteria, all of which were case reports or series representing a total of 129 patient cases with ages ranging from 15-67 years. Over half of studies were published prior to this century and inconsistent with modern practice. Neuraxial techniques included 76 epidurals, 47 spinals, and 6 combined spinal-epidurals (table 1). Completeness of reported data was poor (figure 1). Studies reporting the greatest number of cases and/or originating from Western countries had the least complete