



Paravertebral Blockade in Kidney Transplantation

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ABSTRACT

- Single shot paravertebral block (PVB) for perioperative pain control in patients undergoing heterotopic kidney transplantation vs. traditional intravenous agents with general anesthesia

METHODS

- Retrospective chart review of kidney transplantation between 1/1/21 – 3/22/22 of patients who received a PVB
- Patients were then compared with historical controls who did not receive PVB for the same procedure.
- Outcomes: Perioperative pain scores, opioid consumption, hospital/ICU stay, blood loss, transfusion requirement.

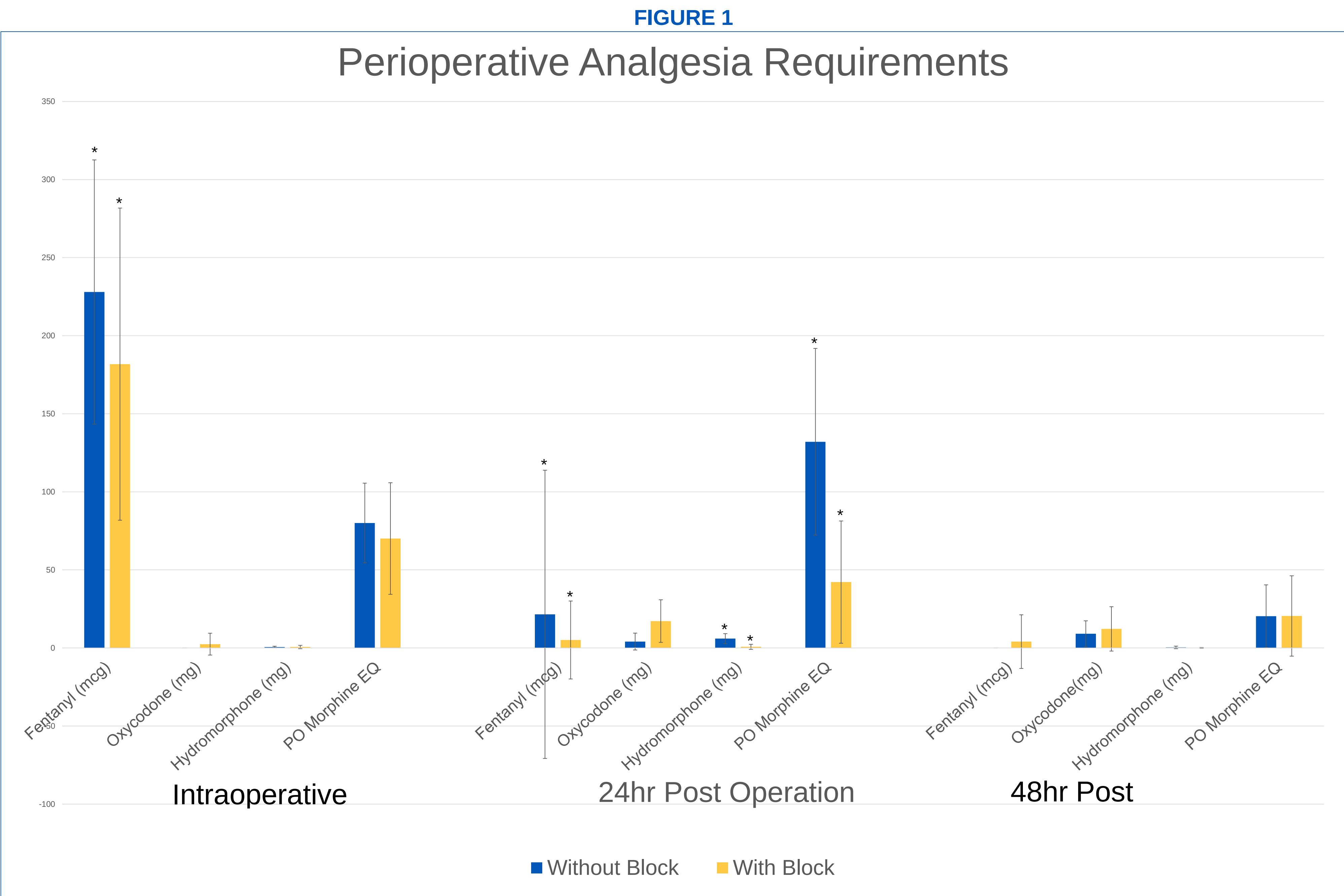
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RESULTS 1



RESULTS 2

- No documentation of complication related to performance of the PVBs.
- Significant reduction in 24 hour post-op OME consumption in the PVB group [42.2mg (39.1) vs 132.1mg (59.8) P<0.00001].
- 2 patients in the PVB group required ICU admission. One patient had hypotension requiring treatment and one patient was admitted for surgical complication.
- No patients in the control group required ICU admission. Total hospital length of stay did not differ significantly between groups.

DISCUSSION

- Single shot PVB demonstrates effective perioperative analgesia, significant reduction in postoperative OME for surgical kidney transplantation.
- Comparable safety profile to IV analgesia (blood loss/transfusion, ICU, mortality)
- Existing literature remains relatively scarce. RCTs involving unilateral PVB catheterization (Yenidunya et al 2017) and single shot thoracic PVB (Baik et al 2014) for open nephrectomy corroborate analgesic potential (1,2).

TABLE 1: General Characteristics

	WITH BLOCK			WITHOUT BLOCK			T-TEST	U-TEST	
	Median	Standard Deviation	Amount	Median	Standard Deviation	Amount	P-value	P-value	Z-score
Age (years)	57.96	13.302		57.42	12.64		0.756	0.704	-0.376
Height (cm)	172.26	10.348		173.17	11.24		0.582	0.857	0.176
Weight (kg)	80.626	17.33		88.47	19.33		0.035	0.055	1.923
BMI	28.34	7.598		29.42	5.66		0.417	0.144	1.458
Gender (M/F)			34/16			32/18			
Death (30 days)			0			0			
Surgical Complication			7			0			

TABLE 2: Perioperative Outcomes

	WITH BLOCK			WITHOUT BLOCK			T-TEST	U-TEST	
	Median	Standard Deviation	Amount	Median	Standard Deviation	Amount	P-value	P-value	Z-score
Intraoperative									
Blood Loss (ml)	125.64	126.17		113.8	108.04		0.99	0.562	0.58
Surgery Time (min)	151.02	36.66		157.26	32.11				
Transfusion (Y/N)			10/40			12/38			
Post Operative									
Hospital Stay Time (days)	5.9	3.318		5.6	3.87		0.675	0.347	-0.941
ICU admission	0.22	1.2		0	0		0.201	0.728	-0.341

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