

COESPINE Trial: Efficacy of Erector Spinae Plane Block With Dexamethasone in CABG Patients

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Introduction

CABG patients benefit from ESP block to reduce opioid consumption and pain.
COESPINE Study: Evaluated ESP block with vs. without dexamethasone.
Hypothesis: Dexamethasone enhances analgesic efficacy without adverse sympathetic impact.

Methods

- Single-center RCT, 40 patients (n=20 per group)
- Inclusion: Adults ≥18, EF ≥45%, elective CABG
- Intervention: ESP block with 0.2% ropivacaine ± dexamethasone (5 mg total)
- Outcomes: Pain scores (VAS, NRS), Opioid use, Ventilation time, Post-op complications, Chronic pain via BPI at 30, 60, 90 days

Results

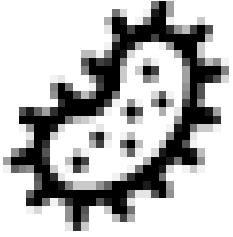
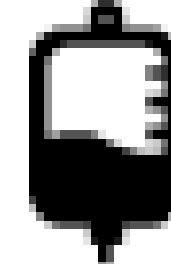
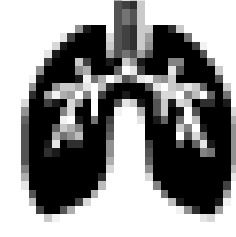
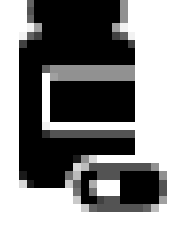
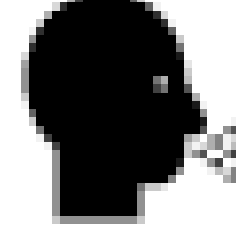
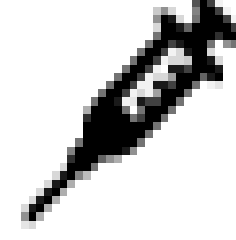
- Enrollment: 98 screened → 40 randomized (20 ESP, 20 ESP + Dex)
- Key Findings:
- **Ventilation Time: Shorter in Dex group (p=0.047)**
 - **Vomiting: Lower in Dex group (p=0.048)**
 - Chronic pain improvement (BPI scores) over time greater with Dex
 - NRS & VAS scores declined in both groups (no significant difference between groups)

Conclusion

- ESP block with dexamethasone led to:
- Faster extubation
 - Less postoperative nausea
 - Improved chronic pain outcomes
 - Steroid-enhanced ESP block may improve recovery in CABG patients.

Disclosures

No financial or commercial conflicts of interest.

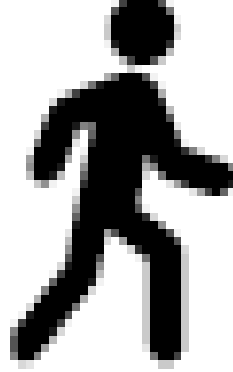
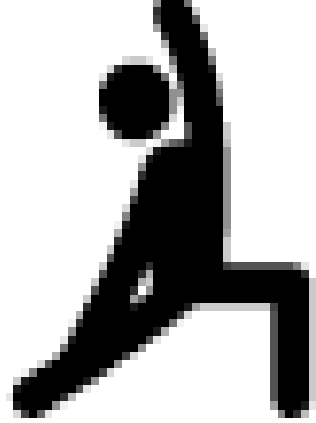
COMPLICATIONS			
	ESP	ESP + Dexamethasone	p-value
	5,0%	0,0%	1,000 ¹
	ESP	ESP + Dexamethasone	p-value
	321,25 mL	295,75 mL	0,82 ²
	ESP	ESP + Dexamethasone	p-value
	872 min	793 min	0,047 ^{+ 3}
	ESP	ESP + Dexamethasone	p-value
	60%	65%	1.000 ²
	ESP	ESP + Dexamethasone	p-value
	55%	20%	0.048 ¹
	ESP	ESP + Dexamethasone	p-value
	157,30	196,45	0,009 ^{+ 3}

1. Chi-square test
2. Fisher's Exact Test
3. Mann-Whitney U Test

Acknowledgements

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The Friedman test

BIP 30,60,90 Days			
	ESP		
	p-valor	0,165	ESP
	ESP + Dexamethasone		p-valor
	p-valor	0,005 *	0,054
	ESP		ESP + Dexamethasone
	p-valor	0,039 *	p-valor
	ESP + Dexamethasone		0,000 *
	p-valor	0,174	
	ESP		
	p-valor	0,039 *	ESP
	ESP + Dexamethasone		p-valor
	p-valor	0,174	0,058
	ESP		ESP + Dexamethasone
	p-valor	0,646	p-valor
	ESP + Dexamethasone		0,012 *
	p-valor	0,029	
	ESP		ESP
	p-valor	0,646	p-valor
	ESP + Dexamethasone		0,016 *
	p-valor	0,029	ESP + Dexamethasone
	ESP		p-valor
	p-valor	0,174	0,010 *
	ESP + Dexamethasone		
	p-valor	0,005 *	
	ESP		
	p-valor	0,247	
	ESP + Dexamethasone		
	p-valor	0,068	

