



Do we still need Continuous Interscalene Catheters for TSA ?

A Retrospective Cohort Study comparing CISBC vs SS ISB+ER Bupivacaine & Meloxicam



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WHY THIS MATTERS:

Postoperative pain following total shoulder arthroplasty (TSA) is moderate to severe and can persist for up to 72 hours.

Continuous interscalene block catheters (CISBC) provide prolonged analgesia but are associated with catheter-related complications and increased resource utilization.

Single-shot interscalene blocks (SS ISB) provide effective perioperative analgesia but have limited duration.

An extended-release (ER) formulation of bupivacaine and meloxicam provides analgesia for up to 72 hours and may extend pain control when combined with SS ISB.

METHODS:

- Data collected retrospectively from patients who had U/L TSA under GA from 6/1/2024 to 12/31/2024.
- 2 groups: CISBC and SS ISB+ER formulation of bupivacaine and meloxicam.
- Primary objective: compare mean NRS pain score till discharge (48 hrs) and mean opioid consumption at 6,24, and 48 hrs (MME) following surgery.
- Secondary objective: compare mean PACU opioid consumption (PACU MME), mean PACU LOS, mean hospital LOS, and complications (LAST or other s/e).
- The primary and secondary objectives are continuous variables; an Independent Sample t-test was used. Outcomes reported with a 95% C.I. and p-value of 0.05 or less are considered statistically significant.

Objectives	Group	Number of patients	Mean	Standard deviation	P value
NRS PS (0-10)	CISBC	25	4.33	2.95	0.19
NRS PS (0-10)	SS ISB + ER	20	4.07	2.7	0.19
6 hrs MME (mg)	CISBC	25	14.6	30.6	0.22
6 hrs MME (mg)	SS ISB + ER	20	9.6	3.7	0.22
24 hrs MME (mg)	CISBC	25	34.9	42.2	0.61
24 hrs MME (mg)	SS ISB + ER	20	28.55	27.3	0.61
48 hrs MME (mg)	CISBC	25	45.5	64.8	0.49
48 hrs MME (mg)	SS ISB + ER	20	41	41.04	0.49
PACU MME (mg)	CISBC	25	6.6	15.6	0.58
PACU MME (mg)	SS ISB + ER	20	8.9	13.9	0.58
PACU LOS (mins)	CISBC	25	88.5	36.2	0.91
PACU LOS (mins)	SS ISB + ER	20	96.5	37.2	0.91
Hospital LOS (hrs)	CISBC	25	43.6	31.7	0.56
Hospital LOS (hrs)	SS ISB + ER	20	45	35.1	0.56

RESULTS:

- A total of 45 patients were included:

CISBC:25 and SSISB+ER: 20.
- The mean NRS pain score till discharge (at 48 hours) and mean opioid consumption at 6, 24, and 48 hrs following surgery were **comparable and did not differ significantly**.
- There were no LAST events or other s/e.

LIMITATIONS AND WHAT’S NEXT:

- Retrospective, small sample size, and single centre.
- Currently, there is an RCT (ClinicalTrials.gov ID: NCT07280195).

CONCLUSION:

- SS ISB combined with ER formulation of bupivacaine and meloxicam provides analgesia **comparable** to CISBC following TSA.
- The combination strategy **may replicate** catheter-level analgesia without catheter burden, **thus simplifying** postoperative pain management.

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