Deep or Superficial erector spinae block: A pilot study to compare the efficacy of two techniques

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Introduction

- Patients undergoing breast cancer surgeries face significant post-operative pain.
- Achieving adequate perioperative analgesia can be challenging

Method

- Prospective randomized double blind study.
- Institutional ethics Committee clearance and CTRI registration (CTRI/2019/01/017349).
- The study done over a period of 6 months, between January 2019 to June 2019.
- Forty female patients, age group 18 to 60 years undergoing unilateral Modified Radical Mastectomy.
- ASA I/II, no history of psychiatric disorder, local anesthetic allergy, not on any chronic analgesic therapy.
- Group I received ESP block. (Deep): 25 ml Of 0.2 % Ropivacaine
- Group II received ESP block. (Superficial) 25 ml of 0.2% Ropivacaine
- The blocks were performed under all aseptic precautions around 40 mins before surgery General Anaesthesia was administered in standardised manner.
- Postoperatively, all patients received iv morphine Patient Controlled Analgesia.

Assessment

- The duration of analgesia (time to first rescue analgesia after administration of block)
- Total analgesic consumption in 24 h after surgery.
- Sensory blockade (30 minutes after the block)

Result

	Group I (DEEP)	Group II (SUP)	P value
Duration of analgesia (hrs) Mean (S.D)	6.75+/- 0.79	5.54+/-1.03	<0.001		
Morphine Requirement (mg) Mean (S.D)	4.30+/-0.87	6.10+/-1.15	<0.000		

Discussion

- ESP block was introduced by Forero et al who used this simple interfascial plane block in cases of severe neuropathic pain post trauma/ malignancy/thoracotomy. [1]
- Erector Spinae block has been used for VATS, thoracotomy, breast surgery, abdominal bariatric surgery, ventral hernia repair [2,3,4]

Limitation

- Post mastectomy chronic pain was not assessed

Conclusion

- Deep to ESP muscle is a more effective technique than the superficial one, in terms of analgesia and opioid requirement.

References

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