

Continuous erector spinae plane block for high chest wall surgery

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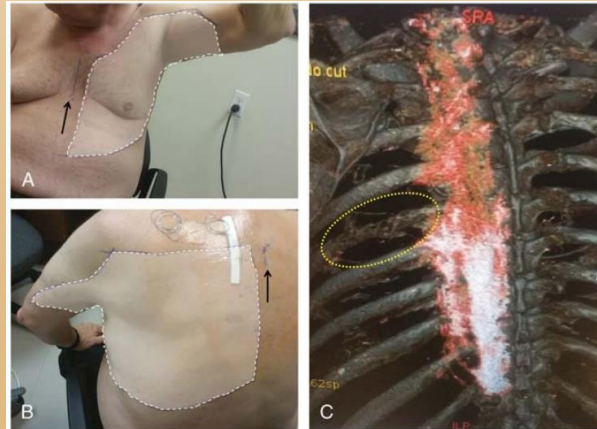
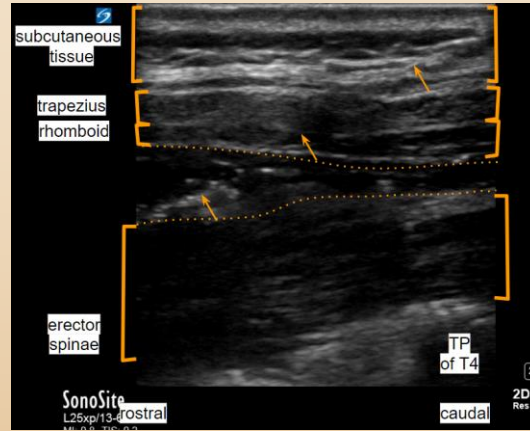
Background

Erector spinae plane (ESP) block is an emerging truncal block. The existing data on its viability and efficacy is promising but scant, especially in the pediatric population. We present a 7 y/o boy presenting for multiple rib resection in which we placed an erector spinae catheter with excellent results.

Our case adds to a growing body of literature suggesting a role for the ESP block in cases where neuraxial techniques are contraindicated, impractical, or failed, and yet there is a high risk for significant truncal pain.

Patient Characteristics

- 7 year old, 25kg boy
- History of widespread multiple osteochondromas, presenting for L rib 2-4 resection and chest wall reconstruction with muscle flap
- Attempted paravertebral catheter after induction of anesthesia which was unsuccessful
- Fentanyl infusion 2 mcg / kg / hr during the case.
- Decision made to attempt ESP catheter at the end of case prior to emergence.



Technique

- Patient in lateral decubitus, linear probe in longitudinal orientation.
- Needle was advanced in plane towards transverse process of T3, targeting muscle plane between rhomboid and erector spinae.
- Ropivacaine 0.25% 10cc was used to dilate the target plane.
- 18G catheter threaded into the space (shown).
- Postoperatively, continuous infusion of ropivacaine 0.2% @ 0.16 cc/kg/hr.

Hospital Course

- Chief complaint after surgery was Foley catheter.
- Required 16 mcg / kg IV hydromorphone in the first 24 hours after surgery and 0.72 mg/kg oxycodone for remainder of inpatient course.
- Tolerated moderate palpation of wound dressing.
- Catheter pulled on POD#3 after chest tube removal and patient discharged home on POD#4.

References

1. Forero, M et al. The Erector Spinae Plane Block: A Novel Analgesic Technique in Thoracic Neuropathic Pain. Reg Anesth Pain Med. 2016 Sep-Oct;41(5):621-7
2. Munoz, F et al. Erector spinae plane block for postoperative analgesia in pediatric oncological thoracic surgery. Can J Anaesth. 2017 Aug;64(8):880-882