

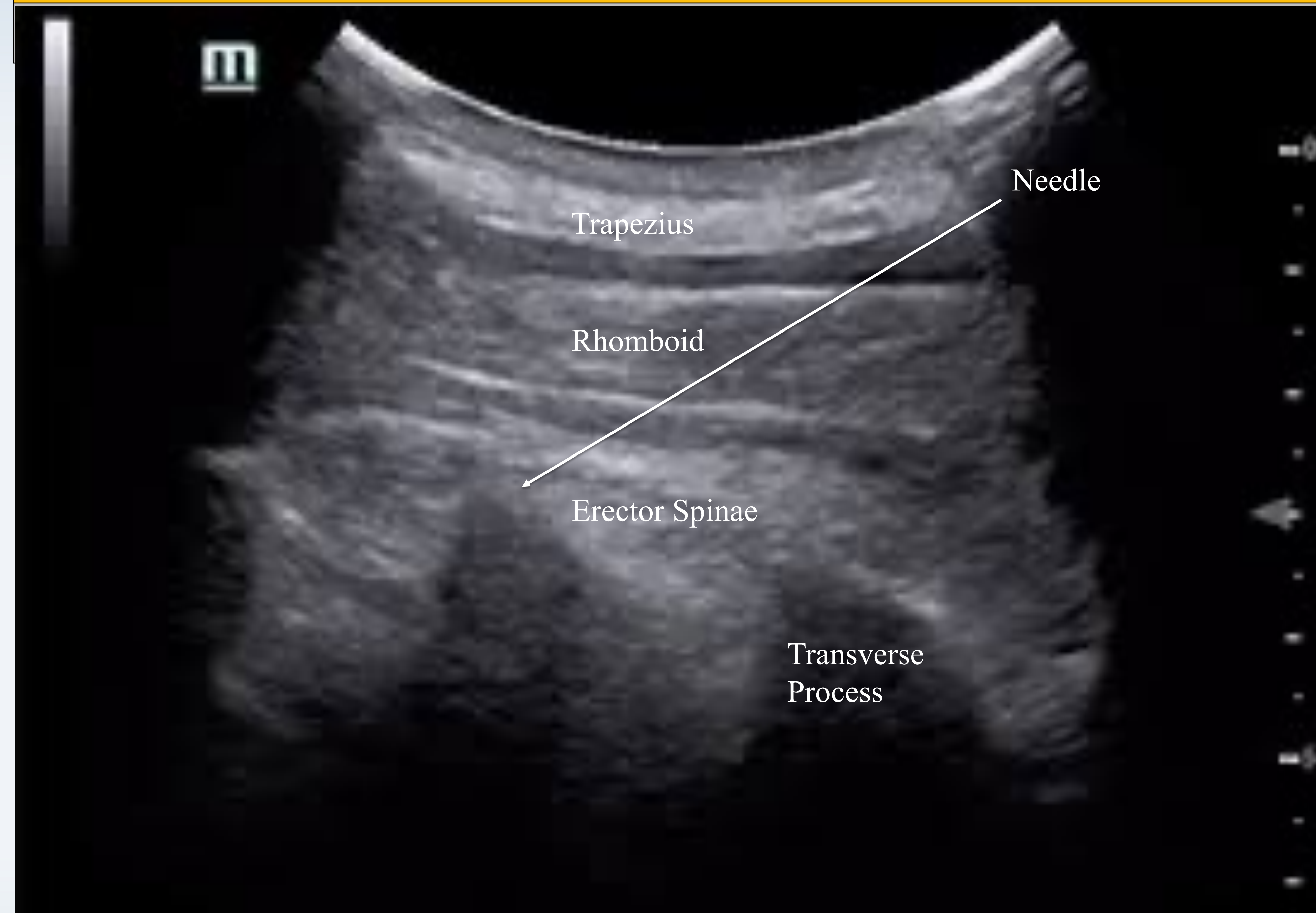
BACKGROUND

- The erector spinae plane (ESP) block is a regional anesthesia technique that effectively manages perioperative and chronic pain
- It offers a less invasive alternative to epidural anesthesia, providing analgesia for procedures involving the cervical and thoracic spine, including thyroid surgeries, video-assisted thoracic surgery (VATS), mastectomies, rib fractures, and chronic thoracic pain(1,2)
- This case report describes the use of a single-shot ESP block to manage chronic post-thoracotomy pain

CASE

- A 75-year-old female with a history of a left upper lobectomy for lung adenocarcinoma, hypertension, and chronic low back pain
- Presented with a five-month history of left-sided chest wall pain (rated 8-9/10) following her VATS procedure
- The pain was located along the left mid-axillary line and radiated beneath her left breast
- Previous treatments, including gabapentin, tramadol, oxycodone, and tizanidine provided insufficient relief
- An ultrasound-guided ESP block was performed at the left T5 transverse process
- A mixture of 10 mL bupivacaine PF 0.5%, 40 mg triamcinolone acetonide, and 5 mL normal saline was injected, and medication spread anterior to the erector spinae muscles
- Following the ESP block performed in the clinic, the patient reported immediate improvement in pain to a rating of 3/10
- At a four-week follow-up, she reported sustained pain relief and reduced pain frequency
- Eight weeks post-procedure, she continued to report effective pain control rating her pain a 0/10

CASE



DISCUSSION

- The ESPB exact mechanism is not fully understood, however proposed mechanisms include:
 - anesthetic spreads through the fascial plane
 - blocking dorsal and ventral rami
 - Potential extension of local anesthetic anteriorly to the paravertebral space
- This results in a multisensory level block
- The medication is injected deep to the erector spinae and superficial to the transverse process
- Prior case reports have shown the ESP block's benefits in reducing pain after thoracic surgeries(3)
- Studies found that continuous ESP blocks post-lung transplantation reduced pain and systemic narcotic use(4)
- Tulgar et al. demonstrated that bi-level ESP blocks provided better pain relief and decreased opioid use compared to single-level blocks(5)

CONCLUSIONS

- There are few case reports documenting the use of ESP blocks specifically for chronic post-thoracotomy pain
- Future research should focus on randomized trials and longer follow-up periods for post-thoracotomy patients

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