

## INTRODUCTION

**Ultrasound-guided erector spinae plane (ESP) block is a regional anesthetic procedure utilized to provide thoracic analgesia.<sup>1</sup> In this technique, local anesthetic is injected into the fascial plane deep to the erector spinae muscle and superficial to the transverse process. It has been described as being performed at the level of the T5 transverse process. However, if the injection were performed at a lower thoracic level, the ESP block could provide both visceral and somatic abdominal analgesia as the erector spinae muscle extends down to the lumbar spine.<sup>2</sup>**

We describe a single injection ultrasound-guided ESP block as a rescue technique in the treatment of acute pain associated with an open nephrectomy.

## CASE DESCRIPTION

A 79-year-old male with a history of hypertension, gout, hyperlipidemia, COPD, asthma, GERD, an open partial colectomy for polyps, and an open nephrectomy for papillary type 1 renal cell carcinoma, presented for a right open nephrectomy.

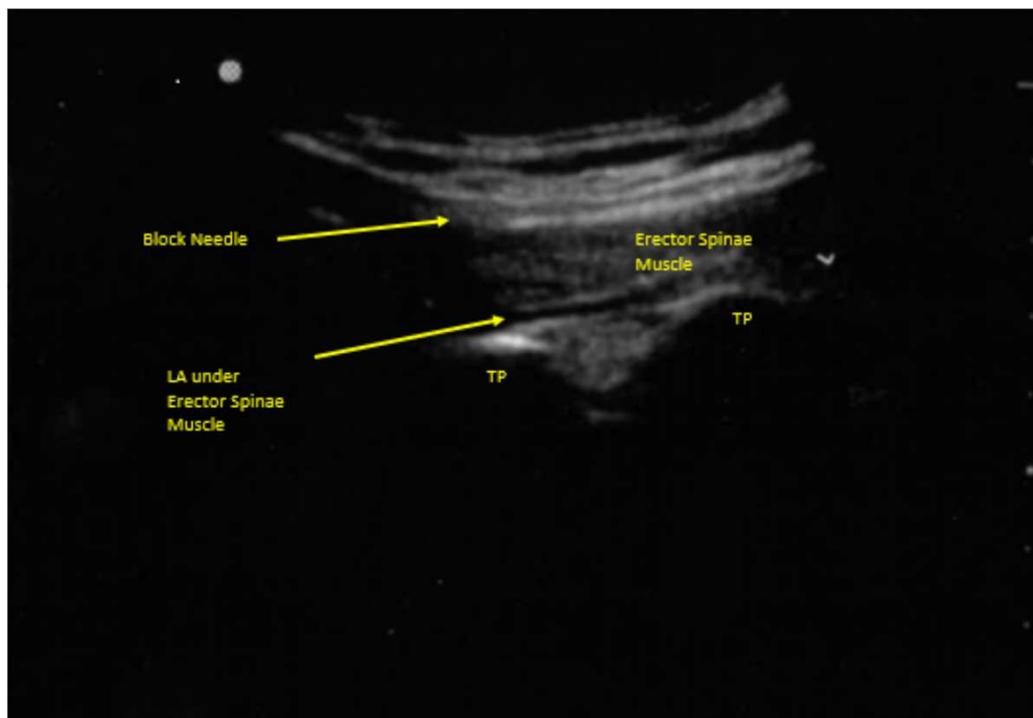
The Acute Pain Service was consulted for postoperative analgesia with an initial plan for bilateral rectus sheath blocks. The location of the surgical incision precluded the ultrasound examination necessary to perform the planned block, however.

A quadratus lumborum (QL) block was also considered, but was met with a paucity of identifiable sonoanatomy to safely perform the block.

The decision was therefore made to perform an ESP block. A single injection right-sided ultrasound-guided ESP block was performed at the T8-T9 level using 60 milliliters of 0.25% ropivacaine. The patient was followed in the intensive care unit and where he reported pain scores of 0/10 at 6 hours, 0/10 at 12 hours, and 3/10 at 24 hours.

## DISCUSSION

There are many regional anesthetic techniques available for post-operative analgesia for abdominal surgery and include the TAP block, rectus sheath block, and neuraxial anesthesia. Although relatively new, the ESP block may be advantageous to the above mentioned techniques in that it is easy to perform, is efficacious for providing both somatic and visceral abdominal analgesia, and has a better safety profile than neuraxial techniques. Compared to existing neuraxial options, hemodynamic changes, coagulopathy, and neurological complications tend to be lower with ESP, which makes the ESP block a preferred safer alternative.



## CONCLUSIONS

The successful use of ESP in this case report adds to the evidence of its utility and warrants further studies to establish the efficacy and safety of the ESP block as a routine analgesic modality in postoperative analgesia for abdominal surgery.

## REFERENCES

1. Chin KJ, Malhas L, Perlas A. The erector spinae plane block provides visceral abdominal analgesia in bariatric surgery: a report of 3 cases. *Regional anesthesia and pain medicine*. 2017 May 1;42(3):372-6.
2. Restrepo-Garces CE, Chin KJ, Suarez P, Diaz A. Bilateral continuous erector spinae plane block contributes to effective postoperative analgesia after major open abdominal surgery: A case report. *A & A case reports*. 2017 Dec 1;9(11):319-21.