

## **SUCCESSFUL USE OF A LUMBAR ERECTOR SPINAE PLANE BLOCK FOR POSTOPERATIVE ANALGESIA AFTER DECOMPRESSION LAMINECTOMY**

Published: 2020-07-30

Ruben Schwartz, DO<sup>1</sup>,  
Ivan Urits, MD<sup>2</sup>,  
Omar Viswanath, MD<sup>3-5</sup>,  
Mark S. Eskander, MD<sup>6</sup>,  
Matthew Eng, MD<sup>7</sup>,  
Alan D. Kaye, MD, PhD<sup>7</sup>,  
Jonathan P. Eskander MD<sup>8</sup>

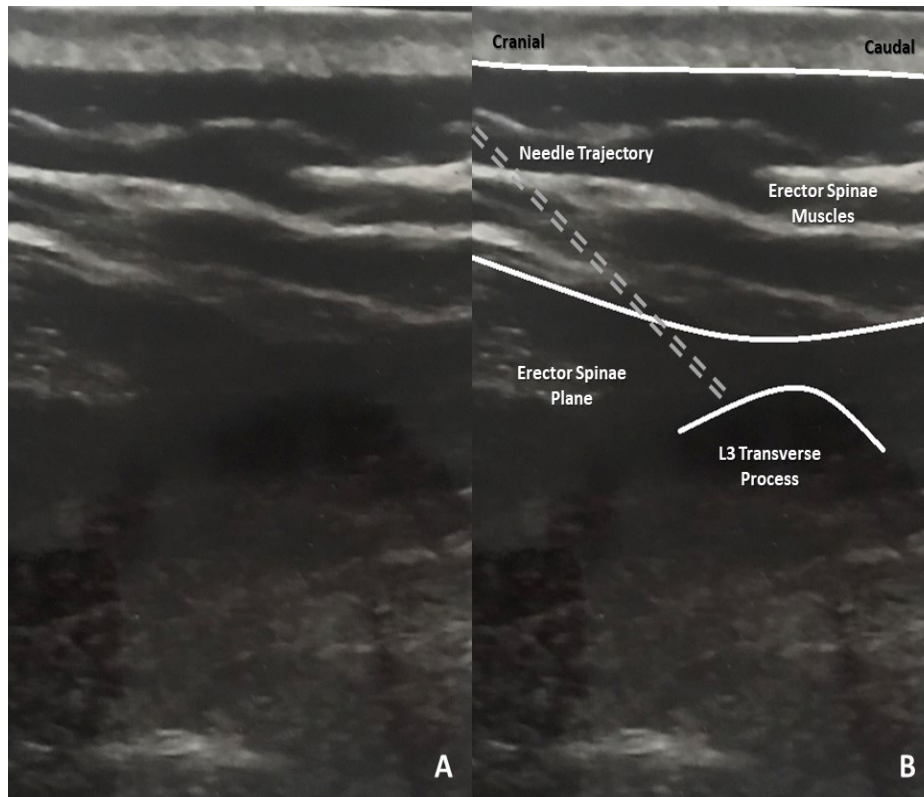


Fig. 1. A) These images demonstrate ultrasound (US) imaging using a linear high frequency ultrasound probe of a lumbar ESP block. B) The anatomical structures represented via US imaging are labeled.

The erector spinae plane (ESP) block is a recently described regional analgesic technique utilized in patients undergoing radical mastectomies, thoracic and abdominal surgeries, or in patients presenting with rib

fractures and even chronic shoulder pain (1-3). The block is performed under ultrasound guidance; the erector spinae musculature is first identified and local anesthetic is deposited in the surrounding fascial sheath with the

From: <sup>1</sup>Mount Sinai Medical Center, Department of Anesthesiology, Miami, FL; <sup>2</sup>Beth Israel Deaconess Medical Center, Department of Anesthesia, Critical Care, and Pain Medicine, Harvard Medical School, Boston, MA; <sup>3</sup>Valley Anesthesiology and Pain Consultants, Phoenix, AZ; <sup>4</sup>University of Arizona College of Medicine – Phoenix, Department of Anesthesiology, Phoenix, AZ; <sup>5</sup>Creighton University School of Medicine, Department of Anesthesiology, Omaha, NE; <sup>6</sup>Delaware Orthopedic Specialists, University of Delaware, Department of Physical Therapy, Affiliate Assistant Professor, DE; <sup>7</sup>Department of Anesthesiology, Louisiana State University Health Sciences Center, New Orleans, LA; <sup>8</sup>Portsmouth Anesthesia Associates, Department of Anesthesiology and pain Medicine, Portsmouth, VA.

Corresponding Author: Ruben Schwartz, DO, E-mail: rubenschwartz@yahoo.com

Conflict of Interest: None Declared. Disclaimer: There was no external funding in the preparation of this manuscript. Conflict of interest: Each author certifies that he or she, or a member of his or her immediate family, has no commercial association (i.e., consultancies, stock ownership, equity interest, patent/licensing arrangements, etc.) that might pose a conflict of interest in connection with the submitted manuscript.

goal of elevating the erector spinae musculature off the bony surface (1,4). The efficacy of ESP blocks for post-operative analgesia in patients undergoing spinal surgery has not been extensively studied. These images demonstrate ultrasound imaging of an ESP block, using 10 mL of 0.2% ropivacaine plus 4 mg preservative-free dexamethasone at the L3-L4 level bilaterally, performed preoperatively in an otherwise healthy 59-year-old female undergoing an L3-L4 decompression laminectomy for spinal stenosis (Fig. 1). Our patient required no

postoperative opioid analgesics and reported minimal surgical pain post operatively. Interestingly she reported a distinct increased, though tolerable, onset of incisional discomfort at approximately 36 hours after she received her block. In patients undergoing surgery with acute pain or patients with certain chronic pain states, an ESP block may be a highly effective regional technique for analgesia. Further, large trials are needed to assess the safety and efficacy of ESP blocks for acute and chronic pain states.

## REFERENCES

1. Forero M, Adhikary SD, Lopez H, Tsui C, Chin J. The erector spinae plane block: A novel analgesic technique in thoracic neuropathic pain. *Reg Anesth Pain Med* 2016; 41:621-627.
2. Veiga M, Costa D, Brazão I. Erector spinae plane block for radical mastectomy: A new indication? *Rev Esp Anestesiol Reanim* 2018; 65:112-115.
3. Forero M, Rajarathinam M, Adhikary SD, Chin KJ. Erector spinae plane block for the management of chronic shoulder pain: A case report. *Can J Anaesth* 2018; 65:288-293.
4. Chin KJ, Adhikary S, Forero M. Is the erector spinae plane (ESP) block a sheath block? A Reply. *Anaesthesia* 2017; 72:916-917.