



Erector Spinae Plane Block for Cancer Related Brachial Plexus Pain: A New Role for Regional Anesthesia in NORA?

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INTRODUCTION

Erector spinae plane (ESP) blocks are a more recent approach for both acute and chronic pain performed in the perioperative setting often performed using ultrasound-guided technique. The ESP block is generally used for surgical procedures in the thoracic and abdominal areas.

There have been fewer reports of regional anesthesia techniques like ESP blocks being utilized in the non-operating room anesthesia setting. We discuss here the case of a 81-year-old male with brachial plexus related pain secondary to recurrent stage IV lung cancer who subsequently reported substantial analgesia after ESP block.

CASE DESCRIPTION

An 81-year-old male w/ stage IV squamous cell carcinoma of the lung s/p chemoradiation and immunotherapy, and COPD, presented with a right supraclavicular nodal neck mass causing significant right shoulder pain. ESP block was planned for the patient prior to undergoing thoracic MRI to dictate future cancer therapy.

Pre-procedure pain score was 10/10 and the patient reported a 0/10 pain score at completion of ESP block. He also denied any paresthesia, symptoms of local anesthetic toxicity, shortness of breath, and remained hemodynamically stable throughout and after the procedure.

CASE DESCRIPTION (continued)

A 21G 4" needle was advanced to deliver an ESP block to the patient's right side at T2. 30 mL of ropivacaine (50%) was injected under sterile conditions and performed with ultrasound guidance under continuous visualization of the needle. Multiple negative aspirations were performed with the needle prior to injecting local anesthetic. After completion of the successful ESP block, patient informed consent was obtained for submission of a case report.

The patient was also followed by Stony Brook Medicine's acute pain team in the days after his regional anesthesia and MRI and he continued to endorse pain relief in his right shoulder in the following 24 hours. Block site remained to appear clean, dry, without erythema, discharge, or bleeding.

CONCLUSION

Regional anesthesia can assist in a personalized, tailored approach to treat patients with cancer-related chronic pain. An ESP block may not have been the traditional or most popular choice for analgesia in the non-operating room anesthesia (NORA) setting. But in this patient, it was an effective choice leading to completion of procedure as well as improvement of pain and quality of life. NORA can pose unique and non-trivial risk and regional anesthesia can be another avenue to reduce this risk. Oftentimes, local anesthetics can be contraindicated or challenging to administer for patients with multiple comorbidities. Improving safety profiles of blocks such as ESP block may allow for more opportunities to consider regional anesthesia in non-operating room settings to improve care.

References on request:

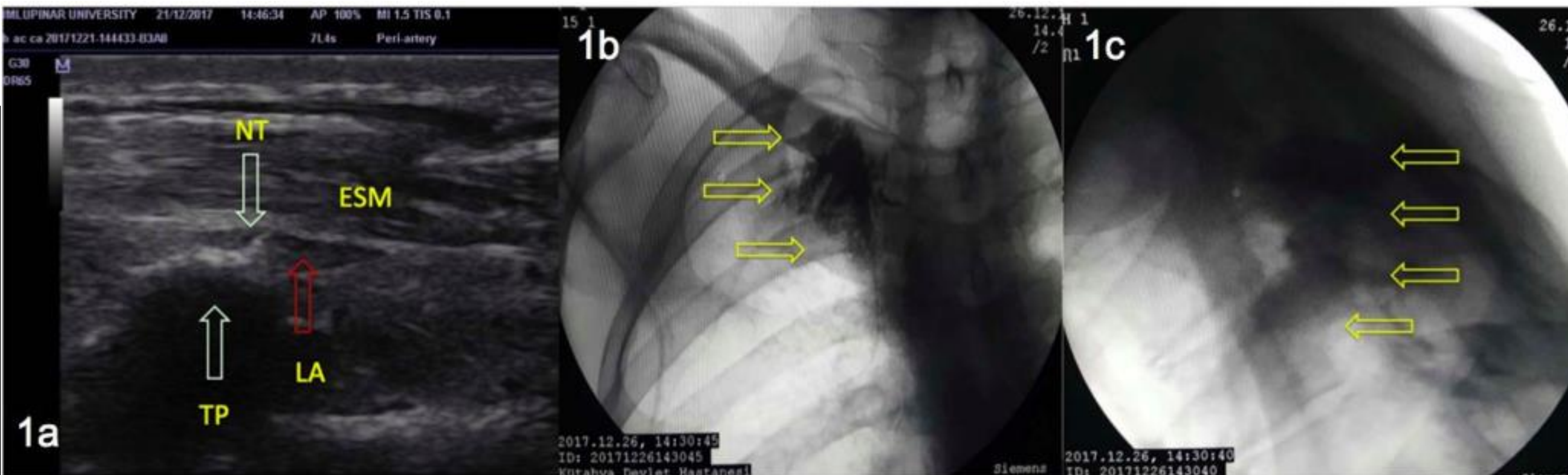
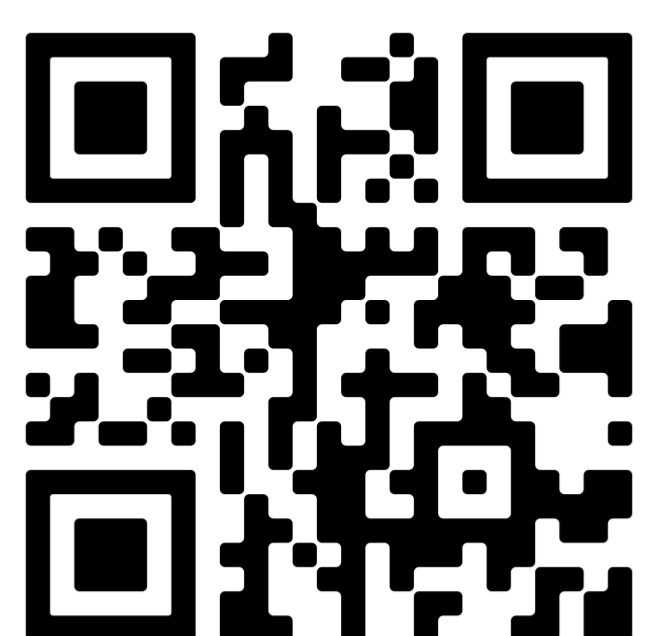


Figure 1: (a) Ultrasound image showing an example of ESP block local anesthetic (LA) spread from needle tip (NT) between erector spinae muscle (ESM) and transverse process (TP) of vertebra. 1b and 1c showing AP/ Lateral X-ray views of spread of radiopaque solution in the erector spinae plane to confirm local anesthetic distribution (Aydin et al, 2018)