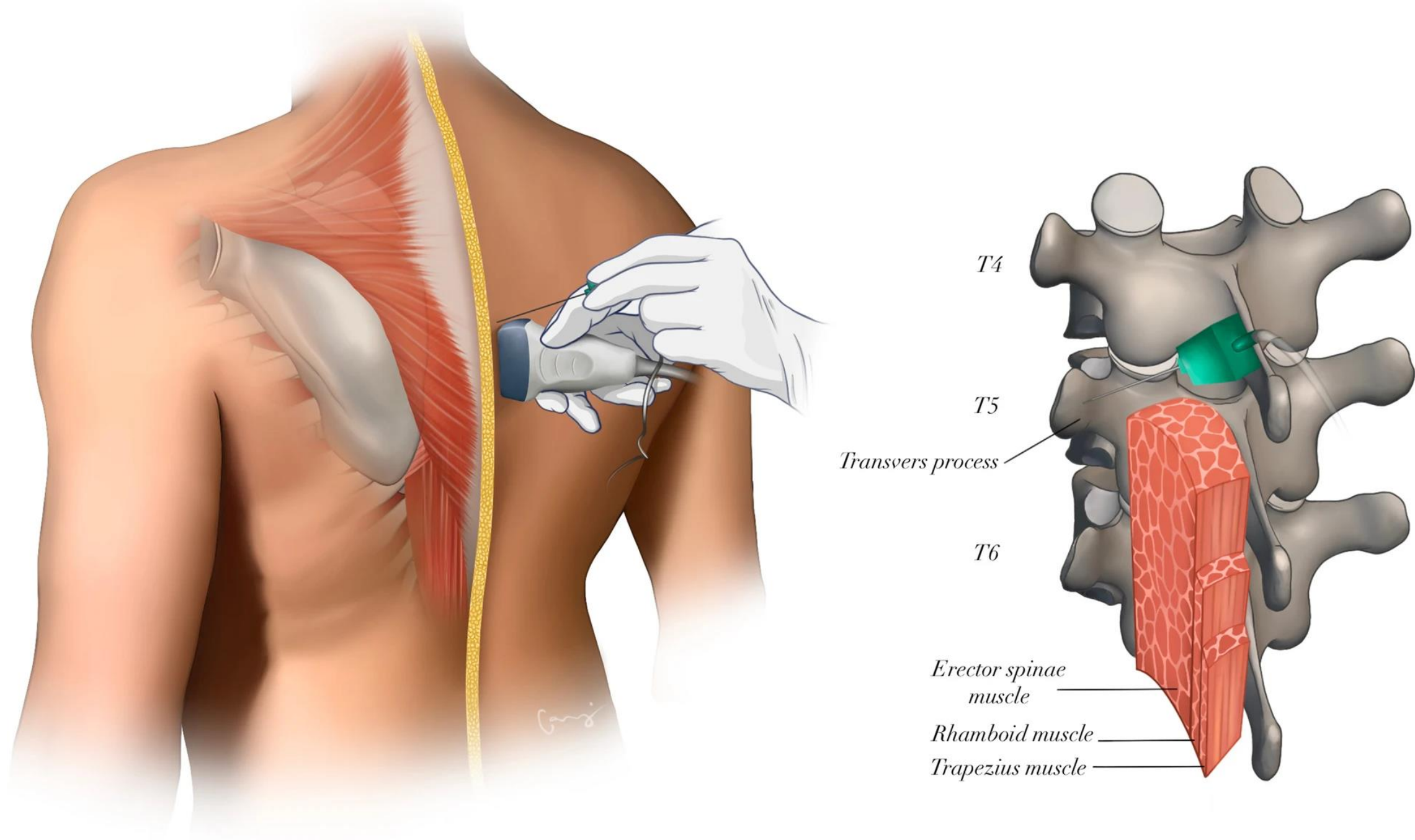


BACKGROUND

- Shoulder arthroscopy is a minimally invasive surgery usually performed to treat severe rotator cuff injuries.
- Postoperatively, patients may experience severe postoperative pain due to retention of lavage fluid from continuous pressure washing of the joint cavity and due to surgical trauma, emphasizing the importance of effective pain management for these patients [2].
- For years, interscalene brachial plexus block (ISB) has been the standard method used for postoperative analgesia after arthroscopic shoulder surgery. More recently, the use of ultrasound guided erector spinae plane block (ESP. Figures 1 & 2), an inter-fascial plane block, has been rising in popularity [1].
- This case series describes the successful utilization of the ESP block as an analgesic adjunct to posterior shoulder surgery.

Figure 1



METHODS

Retrospective review of each case was performed including review of the existing relevant literature.

Each patient gave consent for their case to be written and presented. As the case report is devoid of any personally-identifiable information, it is exempt from IRB review requirements as per Hartford Healthcare policy.

CASE 1 PRESENTATION

- A 40-year-old woman (ASA 1) underwent a left shoulder arthroscopic posterosuperior labral repair.
- Preoperative blocks, including interscalene and superficial cervical plexus blocks, were administered with sedation.
- Despite the preoperative blocks, the patient experienced significant pain 7-8/10 over the back shoulder blade postoperatively for which she received oxycodone with mild to no relief of pain.
- A rescue T4 ESP block was promptly performed in the Post-Anesthesia Care Unit (PACU). The patient's pain rapidly decreased to 0/10, leading to a successful discharge from the PACU.

CASE 2 PRESENTATION

- A 33-year-old man (ASA 1) underwent a left shoulder arthroscopy with an open Latarjet repair.
- Preoperative blocks, including a high supraclavicular block, superficial cervical plexus block, and deltopectoral block, were administered with sedation.
- An additional ESP block was performed. Postoperatively, the patient reported 0/10 pain in the Post-Anesthesia Care Unit (PACU).

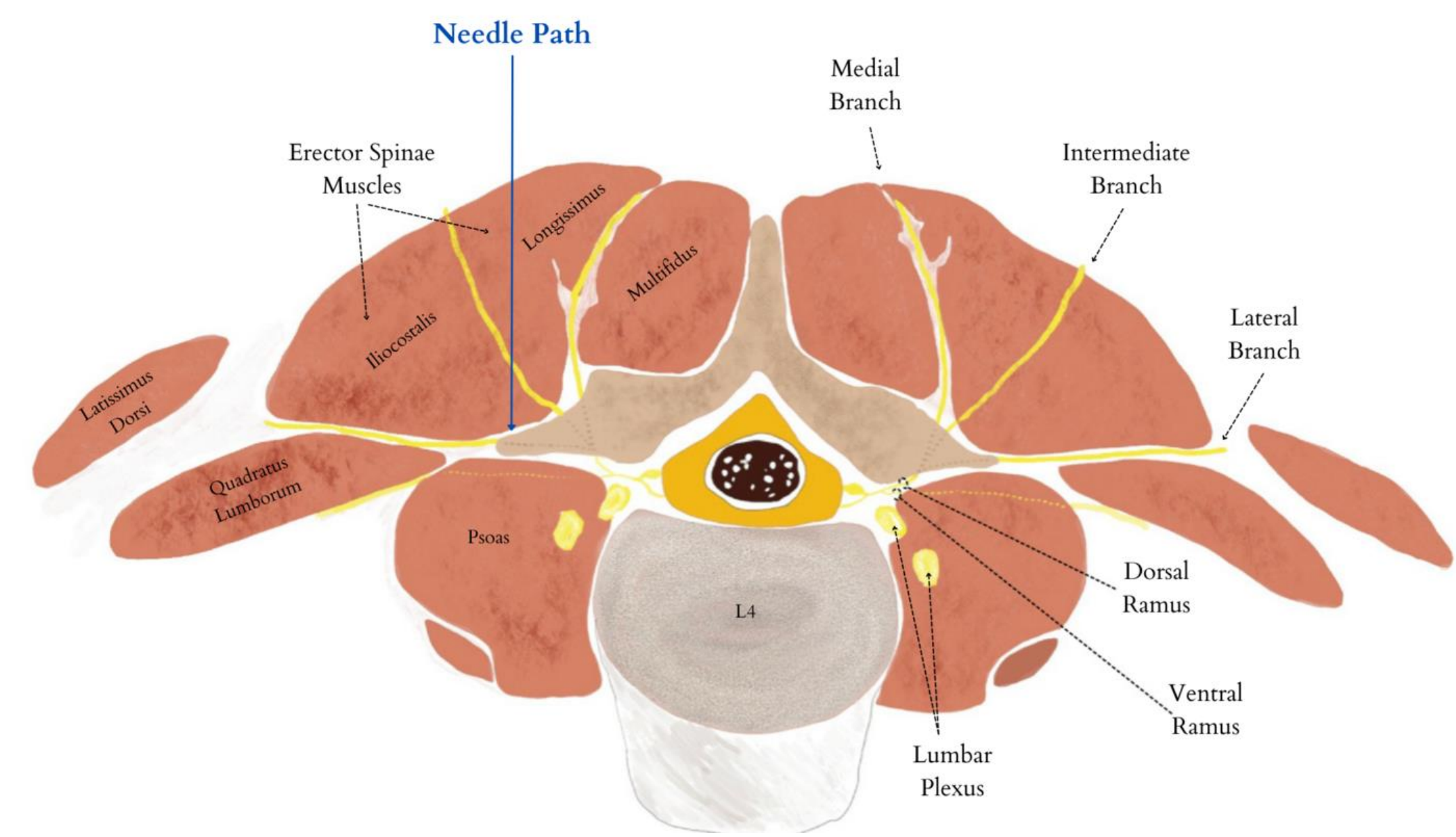
CASE 3 PRESENTATION

- A 26-year-old man (ASA 1) underwent a left shoulder arthroscopic anterior and posterior labral repair, including a superior labrum anterior to posterior repair.
- Preoperative blocks included an interscalene block, superficial cervical plexus block, deltopectoral block, and erector spinae plane (ESP) block. Postoperatively, the patient reported 0/10 pain in the PACU.

DISCUSSION

- ESP blocks have become more popular and have usually been used for analgesia of the thorax or abdomen, but not typically the upper extremity.
- We present three cases in which ESP block was used in conjunction with other analgesics for posterior shoulder surgery. All cases described were narcotic free intraoperatively.
- Case 1 received oxycodone postoperatively, cases 2 and 3 did not receive narcotics in the PACU. The ESP block appears to offer effective pain management post-shoulder surgery.
- An analysis of existing literature has explored ESP as a potential alternative to interscalene nerve blocks, emphasizing its phrenic nerve-sparing characteristics.
- However, there is a limited body of literature discussing ESP as a supplementary approach to other regional anesthesia techniques aimed at reducing or eliminating perioperative opioid use.
- These cases highlight the potential efficacy of ESP blocks as a block that may be used as a rescue or as a preoperative adjunctive block for postoperative pain control in posterior shoulder surgeries, providing valuable insight for clinicians managing similar cases.

Figure 2



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