



Anterior Quadratus Lumborum Catheters for Oncologic Abdominal Wall Resection and Flap Reconstruction

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Introduction

- **Abdominal wall resections with flap reconstruction** are associated with severe postoperative pain.
- Patients with **oncologic disease frequently have baseline chronic pain**, making opioid-sparing strategies essential.
- **Quadratus lumborum (QL) blocks** provide both visceral and somatic analgesia and are increasingly incorporated into **ERAS pathways**.
- Evidence supporting **continuous anterior QL catheter techniques** in complex abdominal wall reconstruction remains limited.

Methods

- **Bilateral anterior QL catheters** placed in the lateral decubitus position using a curvilinear probe.
- 18-gauge Tuohy needle advanced in-plane into the **fascial plane between quadratus lumborum and psoas major muscle, catheter placement confirmed**.
- Infusion protocol: **0.2% ropivacaine with 2 mL/hr basal rate and 15 mL bolus every 3 hours**.
- **Multimodal intraoperative analgesia**: acetaminophen, dexamethasone, methocarbamol, ketamine infusion.

Case Report

43-year-old female with stage IVB clear-cell adenocarcinoma involving the abdominal wall.

Ex-lap, en bloc hysterectomy, right salpingo-oophorectomy, abdominal wall tumor resection, and pedicled ALT myocutaneous flap reconstruction with mesh underlay.

Opioid use:

- Fentanyl 50 mcg (Intraop)
- Hydromorphone 1 mg (Intraop)
- Hydromorphone 0.5 mg (PACU)

- **No additional opioids required during the remainder of hospitalization.**

Pain outcomes:

- Highest pain score **5/10 (single event)**
- Average pain score **≈2/10**
- Patient ambulated **postoperative day (POD) 1**.

- **No catheter complications or LAST**
- Catheters removed **POD4**; patient discharged **POD5** with **zero opioid requirements** following PACU.

Discussion

- **Bilateral anterior QL catheters provided effective visceral and somatic analgesia** following complex oncologic abdominal wall reconstruction.
- Compared with thoracic epidural analgesia, QL catheters:
 - Avoid sympathectomy
 - Avoid anticoagulation-related contraindications
 - Provide broader dermatomal coverage than TAP blocks.
- This case demonstrates the **feasibility and safety of anterior QL catheters as a primary postoperative analgesic modality**.
- Continuous QL catheter analgesia may support **opioid-sparing recovery within ERAS pathways**.

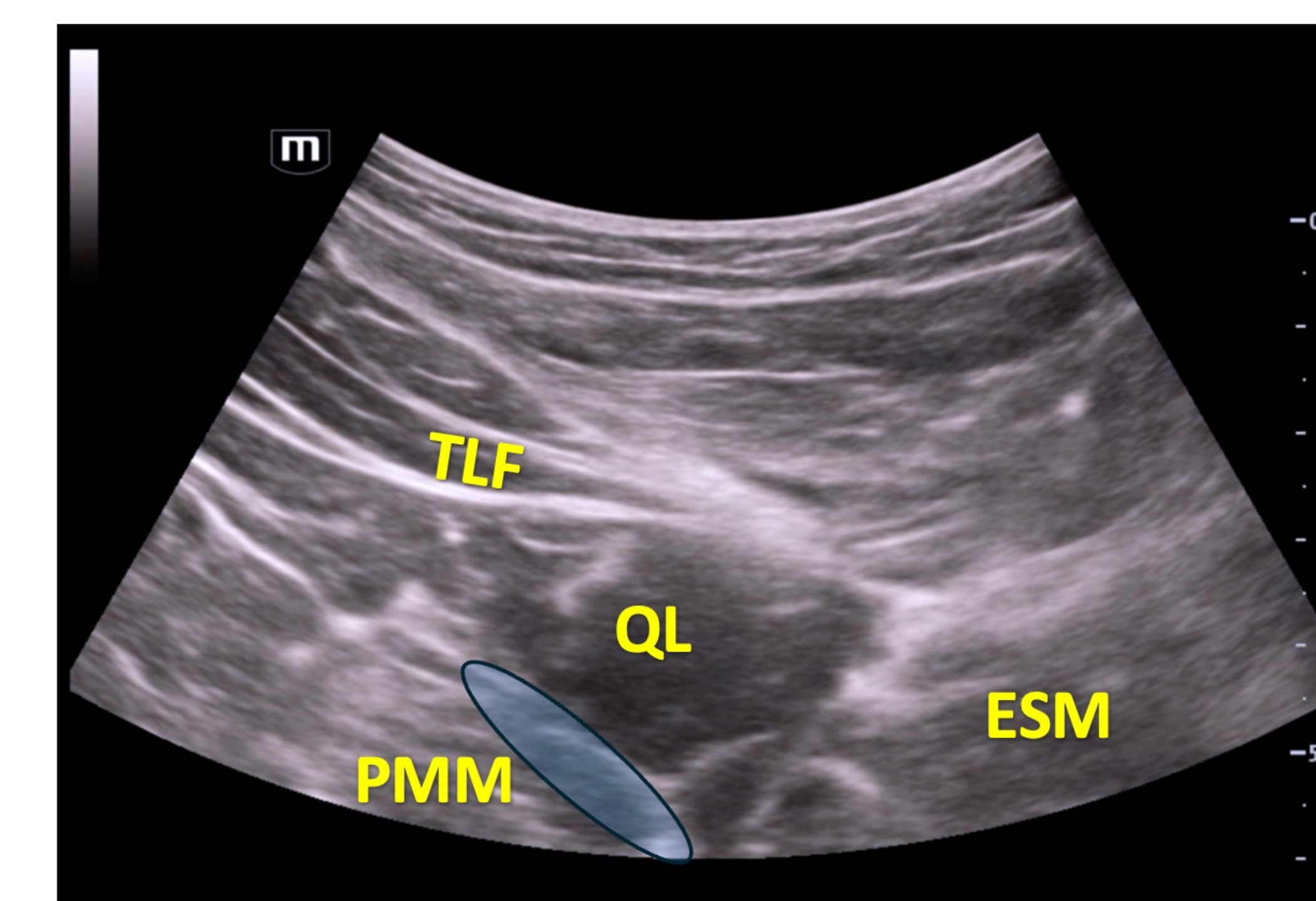


Figure 1: Anterior fascial plane between the quadratus lumborum and psoas major muscles (highlighted in blue). TLF: thoracolumbar fascia; QL: quadratus lumborum muscle; PMM: psoas major muscle; ESM: erector spinae muscle group.

Abstract & References

