

Quadratus Lumborum Catheters to the Rescue: Open RPLND For Testicular Cancer

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Introduction

- Testicular neoplasms, one of the most common malignancies in younger male patients, is amongst the most curable malignancies
- Retroperitoneal lymph node dissection (RPLND) serves as a staging, diagnostic, and potentially therapeutic intervention for testicular cancer.
- Postoperative pain control and progression through recovery can be challenging given the extensive incisional and visceral pain.

In this case report, we present a scenario in which quadratus lumborum (QL) block catheters served as an effective alternative (and rescue) to epidural anesthesia for abdominal wall analgesia following RPLND surgery.

Clinical Images

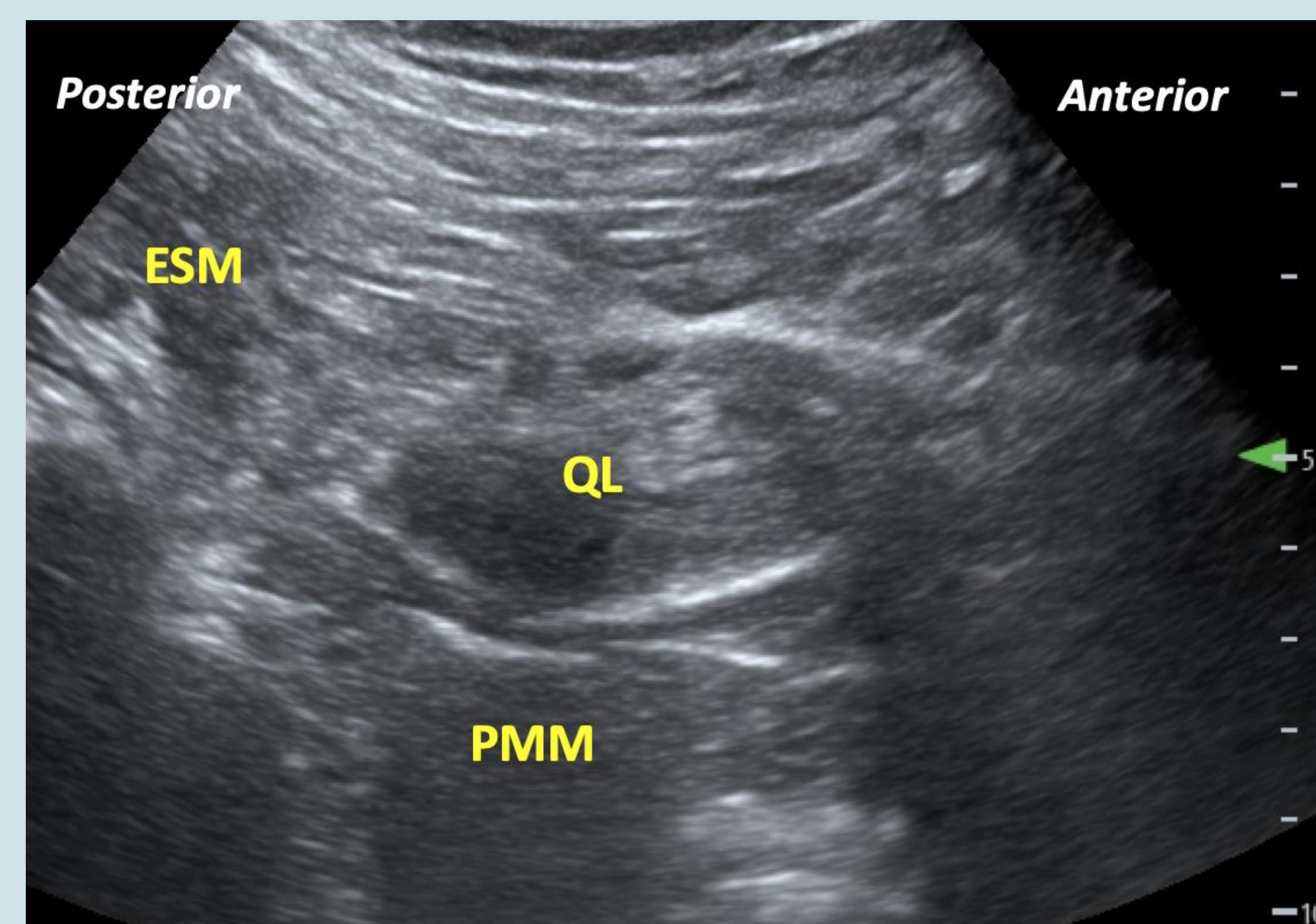


Figure 1: Ultrasound image of posterior abdominal wall with surrounding anatomical structures. QL: Quadratus lumborum muscle, PMM: Psoas Major muscle, ESM: Erector Spinae muscle

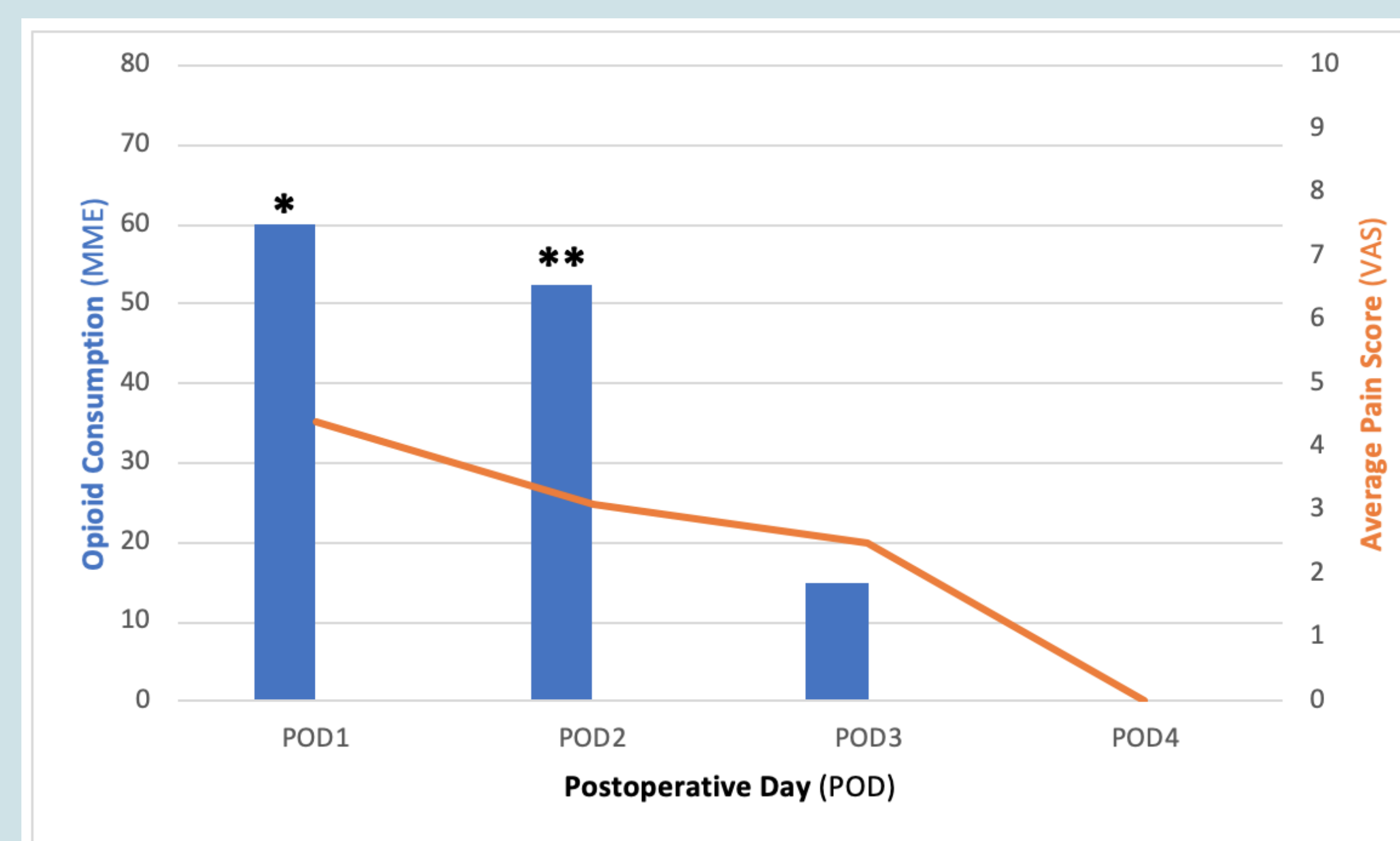
Case Report

28 year-old man with testicular non-seminomatous germ cell tumor (NSGCT) presented for RPLND. Initial discussion for thoracic epidural, however, unattainable due to a variety of constraints & obstacles.

In the immediate postoperative period, several attempts (and with ultrasound) for epidural placement were unsuccessful. Instead, QL catheters were utilized as an alternative analgesic strategy.

- Initial bolus 20 ml of 0.25% bupivacaine was followed by catheter placement under ultrasound guidance (**Figure 1**)
- Continuous infusion of 0.2% Ropivacaine at 2 ml/hr with intermittent bolus of 20 mL every 4 hours
- Multimodal pain regiment started with PRN opioids

Figure 2: Daily opioid consumption (blue) and average pain scores (orange). QL catheters placed on POD0. *Malfunctioning infusion pump resulted in gap of analgesic coverage **Right QL catheter inadvertently dislodged



- Opioid consumption decreased throughout postop recovery and average pain scores remained below 5/10 on VAS (**Figure 2**)
- Discharged on POD4, with no additional opioids required (Figure 2).

Discussion

Analgesic strategies involving regional anesthetic techniques for extensive open abdominal surgery have traditionally focused on epidural analgesia as a “gold standard”.

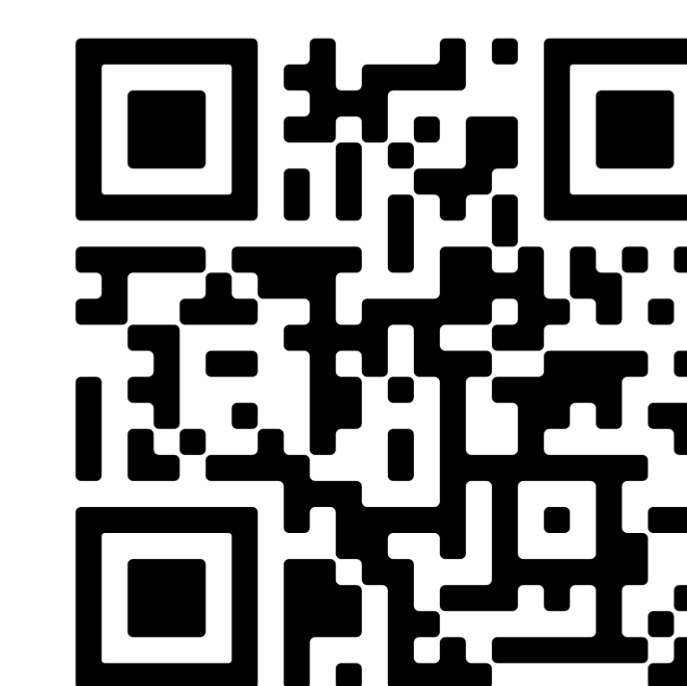
Emphasis on abdominal wall blocks has increased over the last decade in abdominal surgery due to the potential for:

- Less periprocedural risks
- Less systemic side effects (i.e. hemodynamic instability)
- Limited effect on anticoagulation regimens in comparison to epidural

In our case, initial attempts to provide epidural analgesia proved to be unsuccessful due to suboptimal positioning and anatomical challenges. Decision was made to proceed with QL blocks and a catheter-based system for prolonged analgesia, especially with the anticipated extensive recovery course and postop pain trajectory.

- Average pain scores decreased significantly after the block and remained in the mild severity range (**Figure 2**).
- Opioid consumption also demonstrated a downward trend.
- Overall, the patient expressed satisfactory pain relief

This case report demonstrates the utility of QL block catheters in abdominal wall analgesia for an extensive open RPLND surgery. It further reinforces that fascial plane blocks can serve as a reasonable and effective alternative to epidural analgesia in scenarios where epidural placement is either challenging or contraindicated.



Abstract