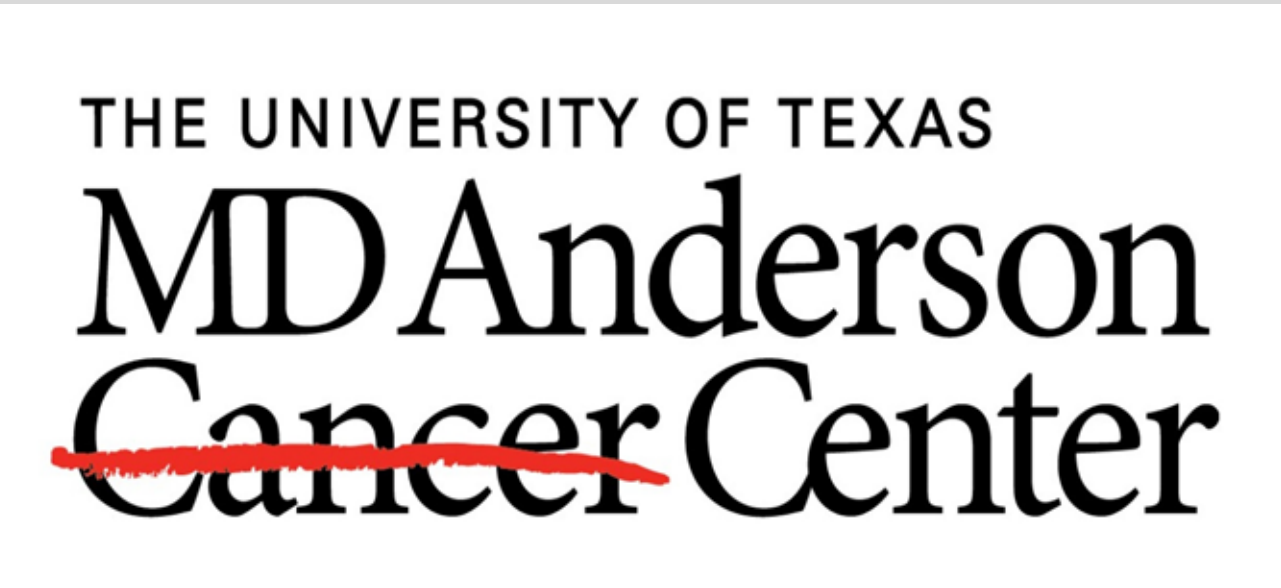




Opioid-Sparing Postoperative Analgesia Using Bilateral Quadratus Lumborum Catheters



Sharon John, Anant Gonugunta M.D.¹, Andrzej Kwater M.D.¹, Edward Tsai M.D.¹, Shannon Hancher M.D.¹, Dr. Acsa Zavala M.D.¹
Adebukola Owolabi M.D.¹, Antoinette VanMeter M.D.¹, Uduak Williams M.D.¹, Hart Donahue M.D.¹, Semhar Ghebremicheal M.D.¹, Keyuri Popat M.D.¹

Introduction

¹Department of

Postoperative pain control is central to ERAS protocols, with effective analgesia reducing atelectasis, opioid use, and ileus. While epidural anesthesia provides superior analgesia compared to parenteral opioids⁽¹⁾, its limitations include failure rates, hypotension, fluid overload, and delayed gut mobilization. Studies comparing continuous TAP catheters to epidurals demonstrate similar analgesic coverage with fewer adverse effects. Therefore, alternative analgesic approaches must be considered.

Here we describe the use of bilateral quadratus lumborum (QL) catheters for postoperative analgesia in a patient undergoing extensive abdominal surgery with HIPEC.

Methods

Informed consent for case report was obtained. Since devoid of patient identifiable information, it is exempt from IRB review requirements per MD Anderson Cancer Center policy.

Clinical Images

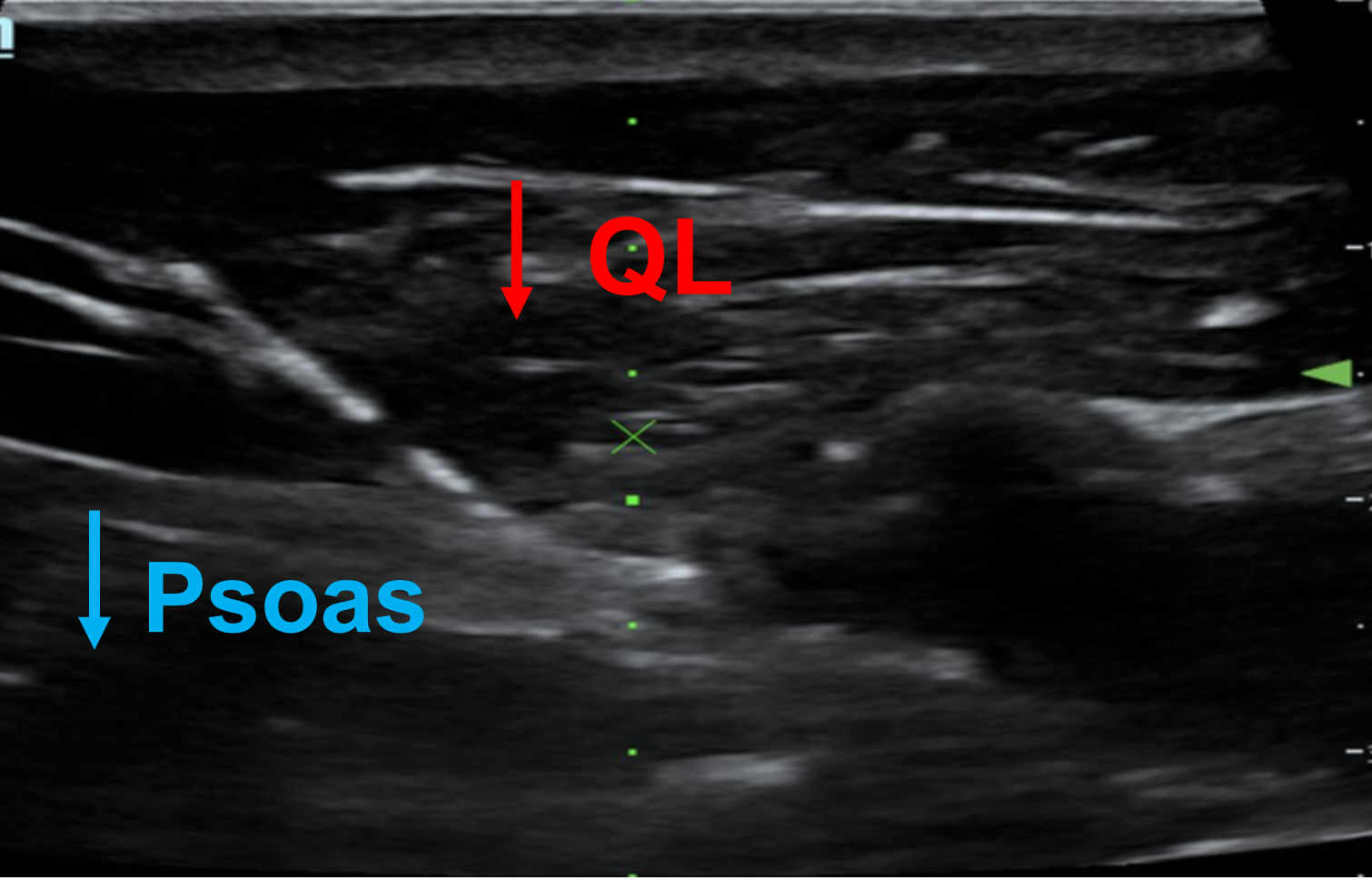


Figure 1: Ultrasound Guided Image of Nerve Block

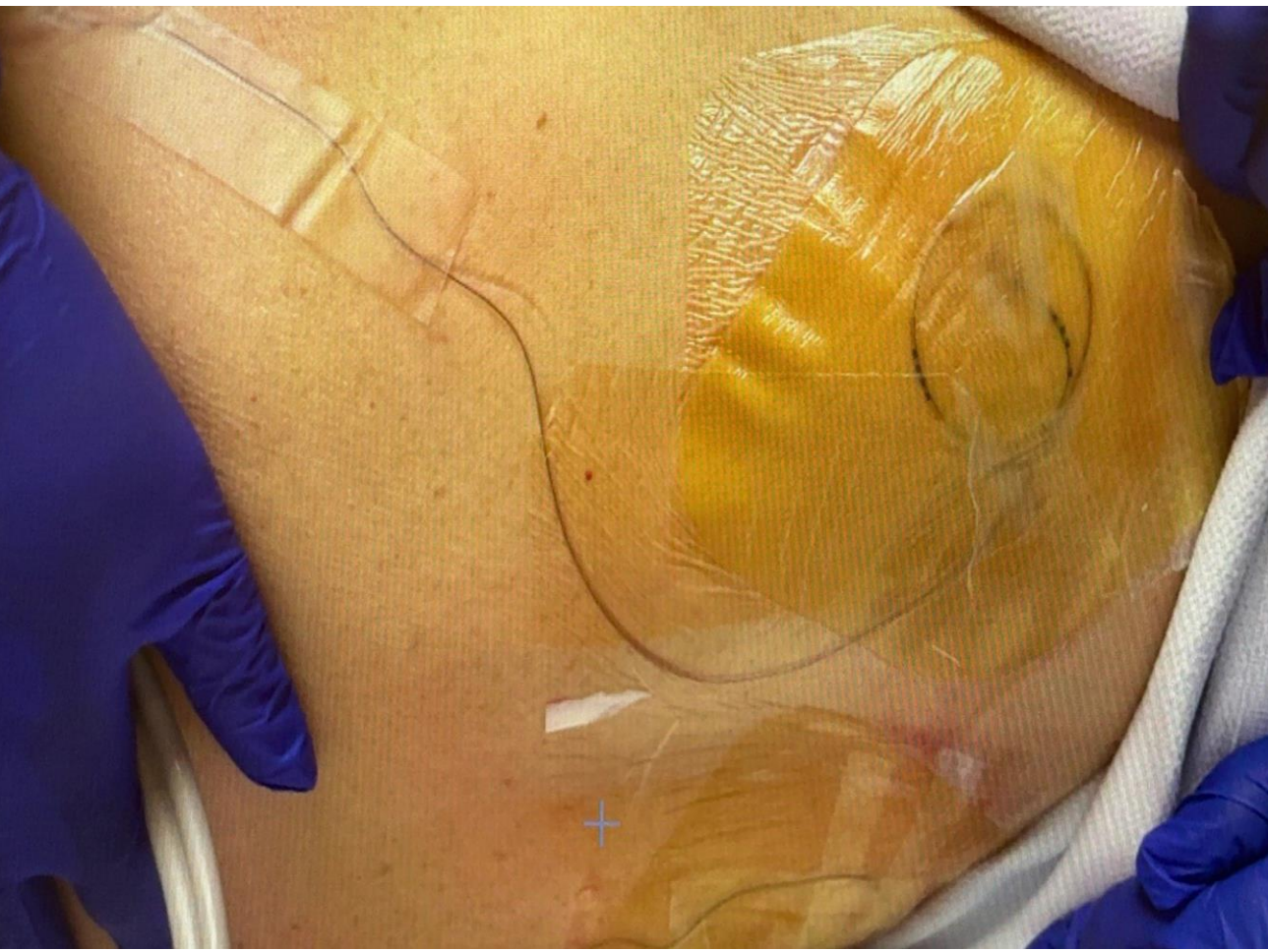


Figure 2: Nerve Block Insertion Site

Case Report

We describe a 73-year-old patient with NAFLD, prediabetes, prior CVA, and hypertension who underwent planned surgical exploration for peritoneal metastatic mesothelioma. The procedure involved extensive tumor debulking (>30 cm disease burden), splenectomy, colectomy, additional organ resections, and hyperthermic intraperitoneal chemotherapy (HIPEC).

Given anticipated insensible fluid losses and blood loss, the surgical team was concerned about postoperative hypotension and requested the avoidance of epidural analgesia. Bilateral ultrasound-guided quadratus lumborum catheters were therefore placed after induction of general anesthesia.

Table 1: Postoperative Pain Scores with Analgesic Coverage
(QL catheters running 0.2% ropivacaine at 2 mL/hr)

POD	Pain Score	Hydromorphone (PRN)	Acetaminophen (Scheduled)	Methocarbamol (Scheduled)	Diet
1	2–7	0.5 mg	650 mg IV x4	500 mg IV x3	NPO
2	0–6	0 mg	650 mg IV x4	500 mg IV x3	NPO
3	0–2	0 mg	650 mg IV x4	500 mg IV x3	Clear liquids
4	0–3	0 mg	650 mg IV x4	500 mg IV x3	Clear liquids
5	0–4	0 mg	650 mg IV x4	500 mg IV x3	Clear liquids
6	0–3	0 mg	650 mg IV x4	500 mg IV x3	Regular diet
7	0	0 mg	650 mg PO x4	500 mg PO x3	Regular diet

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The catheters were infused with 0.2% ropivacaine at 2 mL/hr with 15 mL boluses every 4 hours. Multimodal analgesia included scheduled acetaminophen and methocarbamol, with PRN IV hydromorphone. Postoperatively, pain scores ranged from 0-3 for most of her hospitalization. Total opioid use was minimal, consisting of 0.5 mg IV hydromorphone on POD 1 only. The catheters were removed on postoperative day five.

She remained hemodynamically stable, reported good sleep, ambulated without difficulty, and demonstrated effective pain control throughout her admission.

Discussion

For large abdominal surgeries, epidural analgesia has traditionally provided effective postoperative pain control. However, in patients at risk for significant fluid shifts and postoperative hypotension, alternatives may be preferable.

In this case, bilateral QL catheters provided excellent analgesic coverage. Opioid requirements were minimal, with only 0.5 mg of hydromorphone administered for breakthrough pain. The patient remained hemodynamically stable without complications and progressed appropriately with ambulation and diet advancement.

While this report describes a single patient, further randomized trials comparing QL catheters with epidural analgesia are warranted, particularly within ERAS pathways.