

POSTOPERATIVE INTERMITTENT ROPIVACAINE ADMINISTRATION VIA QUADRATUS LUMBORUM PLANE CATHETERS IN A DOG AFTER UNILATERAL LAPAROTOMIC ADRENALECTOMY

M.D. Degani¹, G.B. Bolen¹, S.L. Larchevêque¹, S.N. Noël¹, L.D. uriez¹, K.G. Gommeren¹, A.B. Briganti²,
C.S. Sandersen¹

¹ Veterinary Teaching Hospital, University of Liege, Liege, Belgium

² Veterinary Teaching Hospital, University of Pisa, Pisa, Italy

Background:

The quadratus lumborum (QL) block is an ultrasound (US)-guided locoregional anesthesia technique that consists of injecting the local anesthetic in the thoracolumbar fascia surrounding the QL muscle, providing abdominal somatic and visceral analgesia¹. Catheter placement in the QL plane for local anesthetic administration is reported in humans for postoperative analgesia after abdominal surgery².

Case presentation:

A 6-year-old, 32 kg, female Siberian Husky underwent laparotomic right-sided adrenalectomy for removal of a cortical cortisol-secreting adenocarcinoma. Premedication consisted of methadone 0.2 mg/kg and dexmedetomidine 1 µg/kg intravenously (IV), general anesthesia was induced with propofol IV and maintained with isoflurane in an oxygen/air mixture. A bilateral QL block was performed with ropivacaine 0.5% (0.3 ml/kg per side). Surgery lasted 300 minutes, due to adhesions between the mass and caudal vena cava, but concluded uneventfully. Consequently, a catheter for epidural administration was placed under US guidance in each hemiabdomen, between the QL muscle and the transverse process of the first lumbar vertebra (L1)². Shortly, a Tuohy needle was introduced in plane in a ventrolateral-to-mediadorsal direction and advanced towards the ventral aspect of the transverse process of L1. Located through the thoracolumbar fascia and near the transverse process, a 0.5 mL saline injection produced inter-fascial plane hydrodissection. A catheter was advanced approximately 5 cm through the needle into the plane, and then fixed to the skin. Correct placement was confirmed by computed tomography, injecting 0.5 mL of iopromide contrast medium. Ropivacaine was instilled before recovery and every 6 hours thereafter for 48 hours. The dog was capable of walking without assistance within 2 hours after extubation. Postoperative therapy consisted of prednisolone 0,5 mg/kg IV BID and trazodone 4 mg/kg per os TID. Glasgow Composite Measure Pain Scale (GCMPS) was assessed every 4 hours as of 1-hour post-surgery (T1). GCMPS was 7/24 only at T1 when methadone 0.2 mg/kg IV was administered. After 48 hours of an uneventful postoperative period, the dog was discharged after catheter removal.

New/Unique information:

Based on this case report, ropivacaine administration through catheters in the QL plane may represent a valid strategy for postoperative analgesia after laparotomy in dogs.

E-mail: mdegani@uliege.be