

Retroperitoneal haematoma after ultrasound-guided ventro-dorsal quadratus lumborum interfascial plane block in two dogs

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The quadratus lumborum block (QLB) is nowadays commonly performed, with retroperitoneal hematomas associated with dorsal QLB previously reported in dogs (Chiavaccini et al. 2024).

This report describes retroperitoneal haematomas after ventro-dorsal QLB in two dogs.

Both cases showed mild coagulation changes that did not require treatment before surgery and did not preclude it. Case 1 involved an 11-year-old, 22.7 kg mixed-breed dog undergoing midline celiotomy for liver lobectomy and splenectomy. The anesthetic protocol included methadone (4.5 mg) and dexmedetomidine (0.011 mg) IV. Anaesthesia was induced with propofol (79.5 mg) and midazolam (2.3 mg) IV, and maintained with sevoflurane in an oxygen/air mixture. Case 2 involved a 3-year-old, 1.6 kg female Maltese undergoing extrahepatic portosystemic shunt attenuation. The anesthetic protocol included dexmedetomidine (0.0016 mg) and fentanyl (0.0032 mg) IV; anaesthesia was induced with propofol (4.8 mg) IV and maintained with isoflurane in an oxygen/air mixture. Dogs were positioned in lateral recumbency and a bilateral QL interfascial plane block was performed, as previously described (Garbin et al., 2020). In case 1, a 22 gauge, 80 mm and in case 2 a 22 gauge, 50 mm, a echogenic single-shot block needle was inserted in a ventrolateral to dorsomedial direction, in plane to a high-frequency linear transducer. Ropivacaine 0.33% (3 mg kg⁻¹) with dexmedetomidine (0.001 mg ml⁻¹) was injected in each dog. In both cases, monitoring included ECG, capnography, SpO₂, invasive arterial blood pressure, and esophageal temperature. During both surgeries, a hematoma in the left retroperitoneal space was observed, with no active bleeding. Both procedures proceeded uneventfully, rescue analgesia was not required; the dogs recovered well with stable clinical parameters postoperatively.

Regardless of the approach used to perform the QLB, attention must be paid to the technique and to coagulation disorders or clinical conditions that could increase the risk of bleeding.

References

- Chiavaccini L, Solari FP, Ham KM, Regier PJ, Vettorato E, Portela DA. (2024) Retroperitoneal hematoma after dorsal quadratus lumborum block in two dogs. *Vet Anaesth Analg.* 51, 112-114.
- Garbin M, Portela DA, Bertolizio G, Garcia-Pereira F, Gallastegui A, Otero PE. (2020) Description of ultrasound-guided quadratus lumborum block technique and evaluation of injectate spread in canine cadavers. *Vet Anaesth Analg.* 47, 249-258.