

## **Retroperitoneal haematoma following ultrasound-guided ventro-dorsal quadratus lumborum block in a cat undergoing nephrectomy**

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Ultrasound-guided quadratus lumborum block (QLB) is widely used in veterinary practice; however, complications may include retroperitoneal haematomas (Chiavaccini 2024).

A 5-year-old male European Shorthair cat, weighing 5.7 kg, underwent nephrectomy due to severe hydronephrosis affecting the left kidney. Preoperative complete blood work revealed moderate anaemia [Hct 21.7% (29-44.3%)], thrombocytopenia [PLT  $55,000\mu\text{L}^{-1}$  (range 144-430  $\text{K}\mu\text{L}^{-1}$ )], and mild hypoalbuminaemia [ $2.7\text{ g dL}^{-1}$  (2.9- 3.7  $\text{g dL}^{-1}$ )]; decreased creatinine [ $42\text{ mg/dL}$  1.09- 1.95  $\text{mg dl}^{-1}$ ]; no other abnormalities were detected and the cat was otherwise healthy. Sedation included IV methadone at  $0.2\text{ mg kg}^{-1}$ ; anesthesia was induced with IV propofol at 15 mg and midazolam at 1 mg. After endotracheal intubation, anesthesia was maintained with isoflurane in oxygen and medical air. Intermittent positive pressure ventilation was applied to maintain normocapnia. Continuous monitoring of HR,  $f_R$ , IBP and  $\text{SpO}_2$  was provided. After surgical preparation, a bilateral ventro-dorsal QLB was performed under ultrasound guidance (dos Santos et al. 2022). Using a high-frequency linear transducer, the quadratus lumborum muscle was identified at the level of the second lumbar vertebra. A 22-gauge 50-mm echogenic single shot block needle was inserted in-plane in a ventrolateral-to-dorsomedial direction. The needle tip was carefully positioned between the vertebral body and the dorsal surface of the quadratus lumborum muscle, and  $0.5\text{ ml kg}^{-1}$  of 0.33% ropivacaine was injected bilaterally after confirming negative aspiration. During celiotomy, a retroperitoneal hematoma was identified cranial to the right kidney. The hematoma was localized, and no active bleeding was observed. The surgery was completed without further complications. Recovery was uneventful. The cat was discharged 48 hours postoperatively.

This case demonstrates the potential for retroperitoneal haematomas following dorso-ventral QLB in cats, emphasising the importance of technical precision and procedural planning.

### **References**

Chiavaccini L, Solari F, Ham K, et al. (2024). Retroperitoneal hematoma after dorsal quadratus lumborum block in two dogs. *Vet Anaesth Analg*.51,107–114

dos Santos JD, Ginja M, Alves-Pimenta S, et al. (2022). Comparison of dorsoventral and ventrodorsal approaches for ultrasound-guided quadratus lumborum block in cats: a cadaver study. *Vet Anaesth Analg*. 49, 481–489.