

## **Peri-anaesthetic management for portal vein venotomy in a dog**

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Portal vein venotomy has recently been described (Hertel et al., 2025); this report focuses on the anaesthetic protocol.

A 9-year-old male West Highland White Terrier, weighing 8.1 kg, underwent partial pancreatectomy and portal vein venotomy for pancreatic carcinoma with vascular invasion. The day before surgery, under general anaesthesia, an epidural catheter (20-gauge) was inserted at the 6 - 7 lumbar intervertebral space with the tip positioned at the level of lumbar vertebrae 3. On surgery day, premedication included IV dexmedetomidine (0.0081 mg) and methadone (1.62 mg). General anaesthesia was induced with propofol (50 mg IV) and maintained with isoflurane in oxygen and medical air. Intermittent positive pressure ventilation was used to maintain normocapnia. Monitoring included ECG, capnography, pulse oximetry, invasive arterial blood pressure, and esophageal temperature. Following surgical preparation, bilateral ultrasound-guided quadratus lumborum blocks with ropivacaine 0.33% (4 ml) (Garbin et al., 2020) and transversus abdominis plane blocks with ropivacaine 0.2% (2.4 ml) (Schroeder et al., 2011) were performed, along with epidural morphine (1.6 mg diluted in 2 ml saline), in order to achieve cardio-vascular stability. During surgery, vital signs were within normal ranges except for hypothermia. The portal vein was clamped for 15 minutes, with a minimum MAP of 56 mmHg recorded during that period. Minimal non-hemodynamically significant bleeding occurred therefore, two 5 ml/kg Ringer Lactate boluses were administered.

Recovery was rapid and smooth; after extubation, methadone (1.62 mg) and dexmedetomidine (0.0081 mg) were administered IV. Post-operative analgesia included epidural ropivacaine 0.33% (diluted in 2 ml saline every 6-8 hours) and morphine (0.8 mg every 24h) and IV methadone, according to the pain scale. Maropitant, antibiotics, and steroids were administered. The epidural catheter was removed the day after surgery and the dog was discharged 4 days after.

### **References**

Garbin M, Portela DA, Bertolizio G, et al. (2020) Description of ultrasound-guided quadratus lumborum block technique and evaluation of injectate spread in canine cadavers. *Vet Anaesth Analg.* 47, 249-258.

Hertel B, Bortolami E, Furlanello T, et al. (2025). Successful venotomy for portal tumor thrombus removal due to pancreatic carcinoma in a dog. *Vet Surg.* Feb 6. doi: 10.1111/vsu.14225. Epub ahead of print.

Schroeder CA, Snyder LB, Tearney CC, et al. (2011) Ultrasound-guided transversus abdominis plane block in the dog: an anatomical evaluation. *Vet Anaesth Analg.* 315:38, 267-271