RESUMO SIMPLES - OUTRAS ÁREAS TEMÁTICAS

LEFT LATERAL HEPATIC LOBECTOMY FOR THE TREATMENT OF CLEAR CELL HEPATOCELLULAR CARCINOMA IN A DOG: A CASE REPORT

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Hepatocellular Carcinoma (HCC) represents one of the most frequently diagnosed malignant primary hepatic neoplasms in dogs. However, the clear cell subtype is a rare histological variant described in the literature, with poorly characterized behavior. Hepatic neoplasms with a single, well-demarcated presentation are indications for surgical excision, as complete resection is the main therapeutic method with proven impact on survival. This report describes the diagnostic approach, surgical technique, and perioperative management used for resection of a clear cell HCC located in the left lateral hepatic lobe of a

female dog. A 12-year-old, 12kg, mixed-breed (SRD) female dog, with a prior history of mammary neoplasia, was admitted to the UFRRJ Veterinary Hospital for evaluation and treatment of a large hepatic mass identified on abdominal ultrasound. Despite showing a slight increase in serum levels of the enzymes alkaline phosphatase and gamma-glutamyl aminotransferase, the patient's complete blood count parameters and other serum biochemistry indicators were within reference limits. Pre-operative examinations were supplemented by Abdominal computed tomography (CT) revealed a homogeneous, well-circumscribed expansile mass measuring approximately 12.6 cm × 7.8 cm× 4.7 cm, originating from the caudal portion of the left lateral hepatic lobe, with no evidence of invasion into adjacent structures, including the spleen and jejunum. Additional findings included moderate splenomegaly, mild urinary bladder wall thickening, and reproductive changes consistent with polycystic ovaries. Coagulation parameters were within reference intervals, and thoracic radiographs revealed no evidence of pulmonary metastasis. Histopathological evaluation confirmed diffuse replacement of hepatic parenchyma by proliferating neoplastic hepatocytes with clear cytoplasm, areas of necrosis, frequent mitotic figures, and focal vascular emboli, confirming the diagnosis of clear cell HCC. After preoperative stabilization and appropriate fasting, a multimodal anesthetic protocol was administered. Pre-anesthetic medication consisted of dexmedetomidine (2 µg/kg) and methadone (0.2 mg/kg), providing sufficient sedation for venous catheterization. Anesthetic induction was performed with propofol to effect, ketamine (1 mg/kg), and lidocaine (2 mg/kg), followed by orotracheal intubation. Maintenance anesthesia included isoflurane combined with continuous infusions of dexmedetomidine (2 µg/kg/h), ketamine (1 mg/kg/h), lidocaine (3 mg/kg/h), and remifentanil (8–15 µg/kg/h). The patient remained hemodynamically stable throughout the procedure. A pre-retro umbilical incision was made with a No. 24 scalpel blade, followed by subcutaneous dissection and incision of the linea alba. The left lateral hepatic lobe, enlarged and well-demarcated, was identified, mobilized, and exteriorized. For adequate vascular control, three proximal ligatures were placed at the base of the lobe. Lobectomy was completed without significant hemorrhagic complications or the need for additional hemostatic interventions. The remaining hepatic lobes and adjacent organs were inspected. Abdominal closure was performed in three layers: myorrhaphy with 2-0 polydioxanone (PDS) in a Sultan pattern, subcutaneous closure with 2-0 PDS, and skin closure with 4-0 nylon in interrupted simple sutures. The intraoperative period was uneventful. Postoperative therapy included dipyrone, meloxicam, and ondansetron, with a

calm recovery and no recorded complications such as hemorrhage or hypotension. The lobectomy resulted in complete removal of the mass without intra or postoperative complications. Recovery was satisfactory, with no development of seroma, infection, or systemic instability, demonstrating the effectiveness of the surgical approach. The success of the procedure reinforces the role of surgical intervention as the primary therapeutic option for isolated, well-demarcated hepatic lesions. The detailed description of this case provides a valuable contribution to veterinary literature by documenting the successful management of a rare variant of hepatocellular carcinoma in dogs.

Palavras-chave: lobectomy; carcinoma; hepatic neoplasia; multimodal anesthesia.