

1 INTRODUCTION

Hepatic carcinoid is a neuroendocrine tumor, meaning it arises from cells that secrete hormones into the bloodstream in response to signals from the nervous system. It should not be confused with carcinomas, which are epithelial tumors. Moreover, this type of neoplasia is particularly rare in dogs, and therefore, the available literature on the subject is limited.

OBJECTIVES

- 1) Collect and synthesize current knowledge on canine hepatic carcinoid through a literature review
- 2) Illustrate diagnostic and therapeutic approaches through the presentation of a real clinical case

2 METHODOLOGY

Systematic literature search

Databases:  

Keywords:

English: “hepatic carcinoid”, “carcinoid tumor liver dog”, “hepatic neuroendocrine tumor canine”, “liver neoplasm dog”, “primary liver tumors in dogs”, “canine hepatic tumor”.

Spanish: “carcinoide hepático perro”, “tumor hepático primario en perros”.

Search strings

- "hepatic carcinoid" AND dog
- "neuroendocrine tumor" AND canine AND liver
- ("hepatic tumor" OR "liver neoplasm") AND dog

24 articles selected



19 cited articles

Case Report

- Single-case qualitative observational study
- Canine primary hepatic carcinoid treated with toceranib phosphate (Palladia®)
- Selected for its clinical uniqueness
- Data extracted from hospital records (Qvet)

3 LITERATURE REVIEW

- Primary hepatic tumors are uncommon in dogs (less than 1.5% of all neoplasms). Carcinoid tumors account for approximately 14% of primary liver neoplasms.
- The most widely accepted theory suggests that these tumors arise from argentaffin neuroendocrine cells in intrahepatic bile ducts.
- They typically show aggressive biological behavior and often involve multiple liver lobes.
- The metastatic rate is high (90%) and common sites include regional lymph nodes, peritoneum, and lungs.
- Clinical signs and laboratory findings are generally nonspecific. Thoracic radiographs are valuable for metastasis detection. Ultrasound enables characterization, assessment of size and anatomical relationships of liver lesions. Advanced imaging supports tumor staging and malignancy evaluation. Definitive diagnosis requires biopsy and histopathology.
- Surgical options are often limited and conventional therapies like chemotherapy or radiotherapy show limited efficacy.
- Targeted therapy using tyrosine kinase inhibitors, such as toceranib phosphate (Palladia®), offers a promising alternative by inhibiting pathways involved in tumor growth, particularly EGFR-related signaling.
- Prognosis is poor to guarded.

CONCLUSIONS:

- Primary hepatic carcinoid is a rare and aggressive tumor in dogs, with high metastatic potential and limited treatment guidelines. Molecular imaging could improve early diagnosis, but is currently unfeasible in veterinary medicine due to cost and infrastructure.
- Toceranib phosphate (Palladia®) may slow tumor progression and improve quality of life, offering a promising alternative to conventional therapies. Further studies are needed to confirm its clinical value.