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Abstract

Computed tomography of ovarian neoplasia in dogs: a proposed systematic approach to imaging report.

Introduction: Ovarian neoplasia is uncommon in dogs, with an overall prevalence up to 1.4% of all canine tumors, increasing to 6.25% in intact bitches. Considered the reported favorable prognosis, surgical treatment is recommended even in advanced cases.

This multicentric case series aims to describe the Computed Tomography (CT) features and metastatic pathways of ovarian neoplasia in dogs through a systematic approach.

Methods: The CT images of 9 intact bitches from 5 referral centers were retrospectively reviewed and reported by a board-certified radiologist following the consensus-based lexicon developed for CT evaluation of ovarian cancer in human patients.

Results: Results included 7 unilateral (4 left, 3 right) and 2 bilateral neoplasia, with prevalent mid-abdominal localization (7/9), mass effect on the surrounding intestinal loops (8/9) and heterogenous pre- and post-contrast appearance. Peritoneal stranding (9/9) and effusion (7/9) were frequent findings. The most common adnexal lesion was the presence of a tortuous ovarian artery (8/9), which could be helpful to identify the ovarian origin of complex masses. Sternal lymph nodes were the most altered nodes (6/9). Metastatic lesions were found in 5 cases (55%), with concurrent signs of tumor rupture and peritoneal effusion in 4 dogs. However, distant metastases were mainly secondary to hematogenous spread (3) compared to local implant (1), differently from human literature.

Conclusion: The human lexicon for ovarian cancer CT evaluation could be effectively applied in veterinary medicine to standardize imaging reports, providing also valuable data to guide patient treatment and defying prognosis.

References

Shinagare AB, et al. "Ovarian cancer reporting lexicon for computed tomography (CT) and magnetic resonance (MR) imaging developed by the SAR Uterine and Ovarian Cancer Disease-Focused Panel and the ESUR Female Pelvic Imaging Working Group." *European Radiology* 32.5 (2022): 3220-3235. Goto S, et al. "A retrospective analysis on the outcome of 18 dogs with malignant ovarian tumours." *Veterinary and Comparative Oncology* 19.3 (2021): 442-450.