Diagnostic Imaging in Veterinary Oncology

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Abstract

In veterinary medicine the most imaging modalities are radiology and ultrasound, due to the wide availability and low cost. Radiology guarantees considerable information in the study of the appendicular skeleton, in addition to the thorax. The limitation of radiology is linked to the fact that three-dimensional organs are represented on a plane in the image, so there are overlaps of organs. Then there are tomographic techniques that avoid overlaps and are more accurate. Ultrasound (US) allows to obtain important information in soft tissues, in particular with regard to the abdominal organs or superficial intra-thoracic lesions. It also represents a guide for performing targeted biopsy sampling. It is limited by the bone structures and gas. Computed tomography (CT) and magnetic resonance imaging (MRI) have higher costs, are less available, but give significantly more accurate information. The CT in particular also allows to obtain the study of the whole body ("total body"), so to give information both on the primary tumor and on the possible presence of metastases, thus carrying out a complete staging. It also allows for guided biopsies. Of all these imaging modalities, CT is considered the method of choice in veterinary oncology and is considered the most used modality by surgeons to verify tumor operability. With regard to the primary tumor, information is obtained on the size of the tumor, its exact location and extent (local invasiveness), as well as for metastatic search and to look for concomitant diseases. CT also plays a fundamental role in the treatment of tumors with radiotherapy or to follow up the patient after the treatment.

Biography

Massimo vignoli had graduated at the University of Bologna with a thesis on hip dysplasia in dogs. Specialized in veterinary radiology at the University of Turin. Resident prize ECVDI, 2002 on: CT-

Publications

2. Lymphatic Drainage Mapping with Indirect Lymphography for Canine Mammary Tumors, DOI: https://doi.org/10.3390/ani11041115
4. B-Mode and Contrast Enhanced Ultrasonography Features of Gastric Inflammatory and Neoplastic Diseases in Dogs, DOI: https://doi.org/10.3390/ani11030670
5. B-Mode and Contrast Enhanced Ultrasonography Features of Gastric Inflammatory and Neoplastic Diseases in Cats, DOI: https://doi.org/10.3390/ani10081444