



VETCT
CONSULTANTS IN TELEMEDICINE

REPORTING SERVICE: CT

Report number: VETCT_123456

Report date: XX/XX/XX

Referring Veterinarian: Dr VET

Referring Practice:

Email address:

Owner:

Patient: Charlie

Species: Canine

Breed: Cross breed

Sex: MN

Age: 7y

Previous report number: None

Clinical History:

Thoracic mass in the left hemithorax found on routine clinical examination. Clinically the dog has no signs related to this or any other illness. The owners do not note any cardiorespiratory signs. The dog is on rimadyl intermittently.

Questions to be answered:

What is the location and margins of the mass? What is the most likely tissue origin? Is the mass associated with other tissues? Surgical planning?

Number of series/images: 6/1012

Study dated: XXX

Study received: XXX

Anatomic regions: XXX

Details of study and technical comments:

Transverse CT series of the chest are submitted, thin slices, including pre and post contrast series in bone/lung and soft tissues algorithms. The images are of excellent diagnostic quality.

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Co Number 6955449 Registered Office St John's Innovation Centre Cowley Road Cambridge CB4 0WS UK

This report is based on the available history and radiographic interpretation only and not on a physical examination of the patient. It must therefore only be interpreted by a currently licensed and registered veterinary surgeon responsible for the care of this patient.

Diagnostic interpretation:

There is a very large pulmonary mass arising from the left cranial lung lobe and involving more than 90% of its volume. It measures 7.2 x 9.3 x 5.4 (DV x CrCd x ML). The lesion creates a pronounced mass-effect and results in a mediastinal shift towards the right and mild loss of volume of the right cranial lung lobe. The mass is well-margined, has a homogeneous architecture and is mildly enhancing after contrast enhancement (HU pre contrast = 43, HU post contrast = 51). It has rounded borders and follows the normal contour of the left cranial lung lobe. The mass extends along the left thoracic wall from the 3rd to the 7th rib and ends at the level of the xiphoid. A volumetric study of the mass indicates a total volume of 144 cm³.

The remaining craniodorsal portion of the left lung lobe is reduced in volume and atelectatic. At the level of the carina, the bronchus of the caudal portion of the left lung lobe courses through the mass, but is not compressed.

There is a sharply-margined, rounded, soft tissue attenuating structure present in the cranial mediastinum, consistent with an enlarged cranial mediastinal lymph node (2cm diameter). The left bronchial lymph node is also enlarged (1.8cm). Both nodes show slightly heterogeneous enhancement with contrast, though their margins remain smooth.

The rest of the pulmonary parenchyma is normal, and there is no evidence of pulmonary nodules. The osseous structures of the thorax are normal (including the shoulders). The included cranial abdominal structures are also unremarkable.

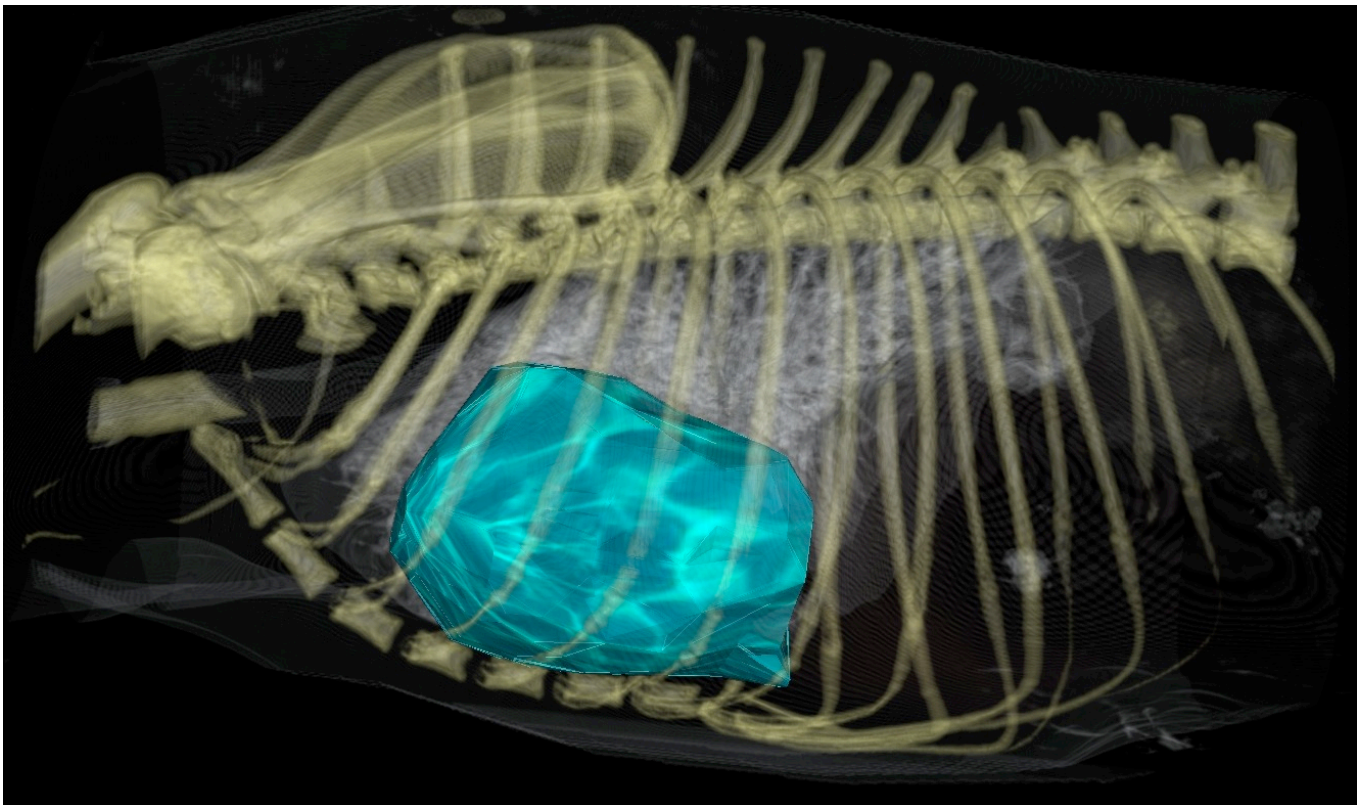


Fig 1: 3D Region of interest displayed in a volume rendered view of the thorax, lateral projection – volumetric study of the mass (shown in blue) indicates : 144 cm³.

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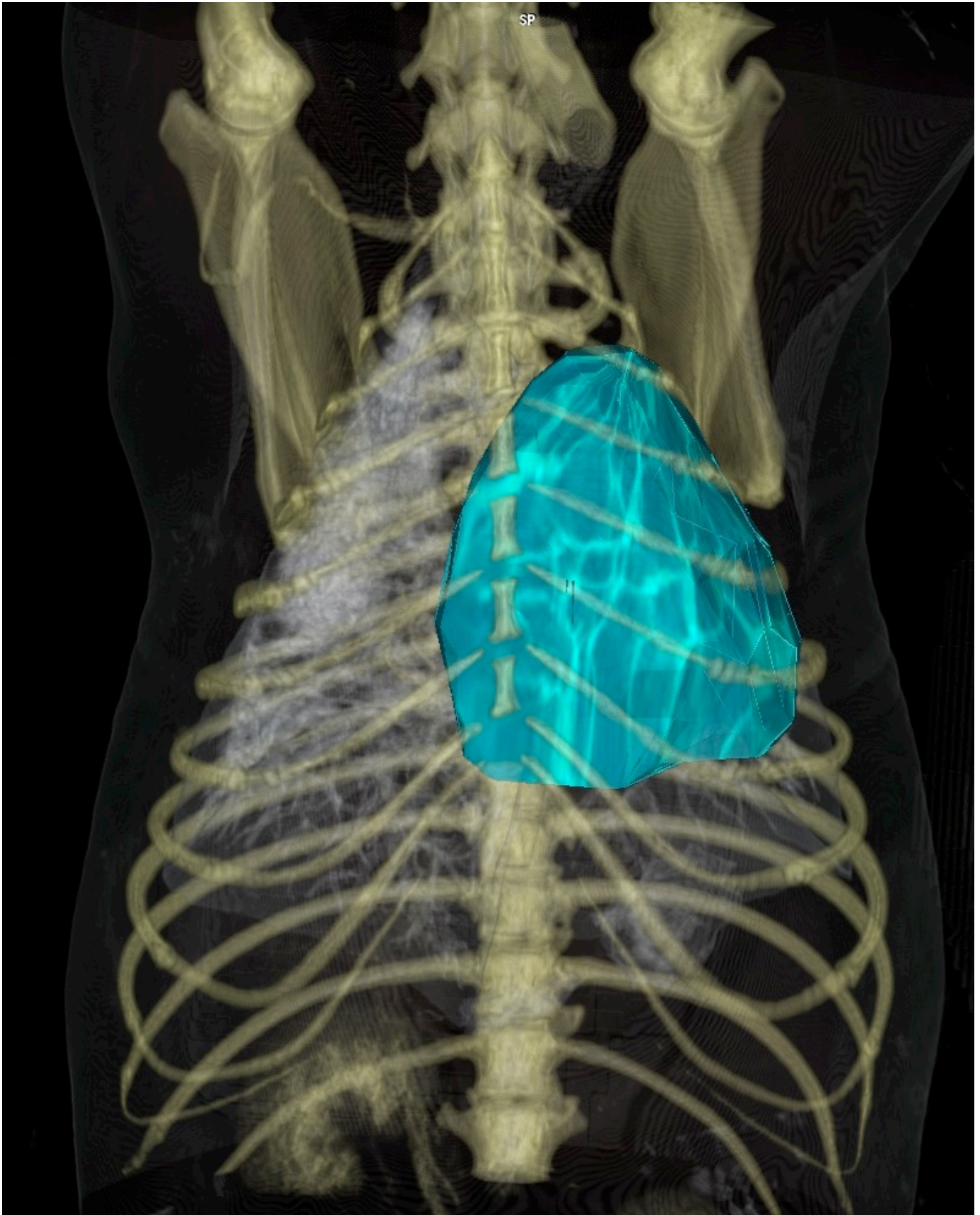


Fig 2 : 3D Region of interest displayed in a volume rendered view of the thorax, VD projection – volumetric study of the mass indicates : 144 cm³.

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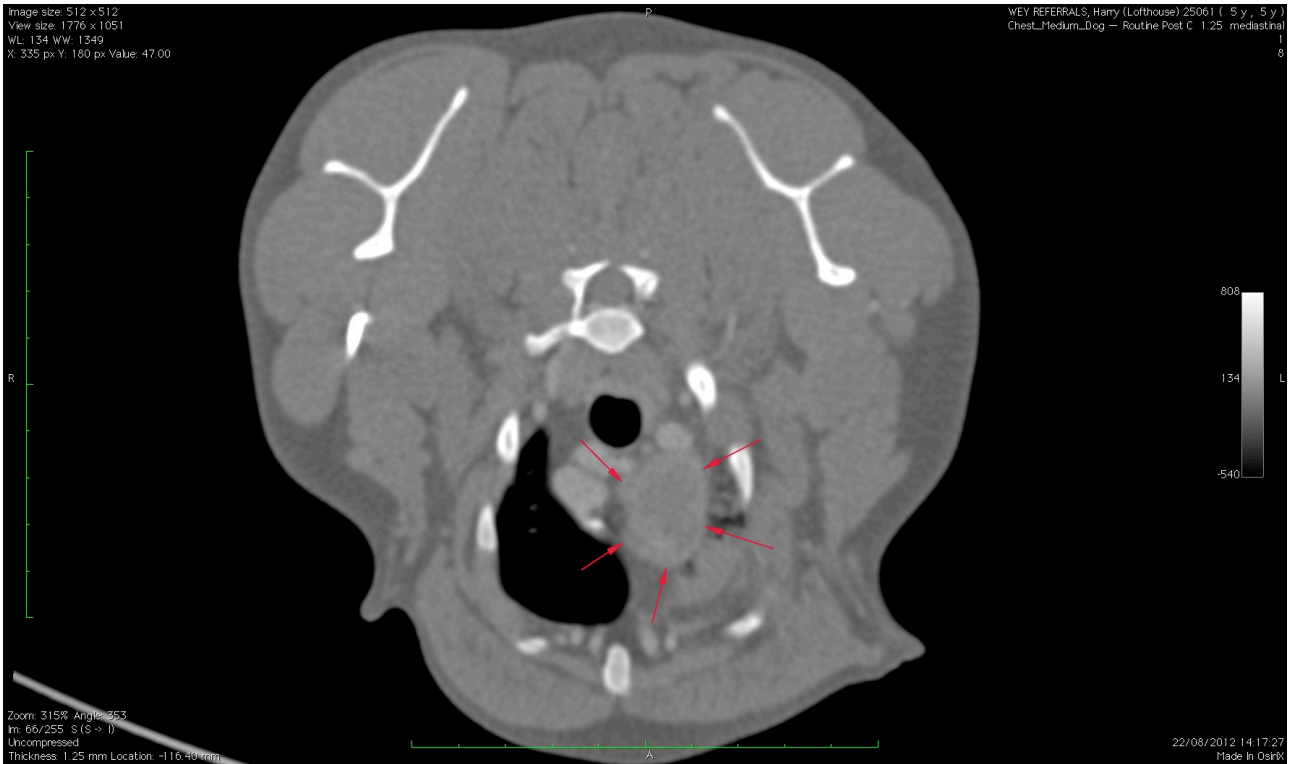


Fig 3: Solitary enlarged cranial mediastinal lymph node (red arrows).

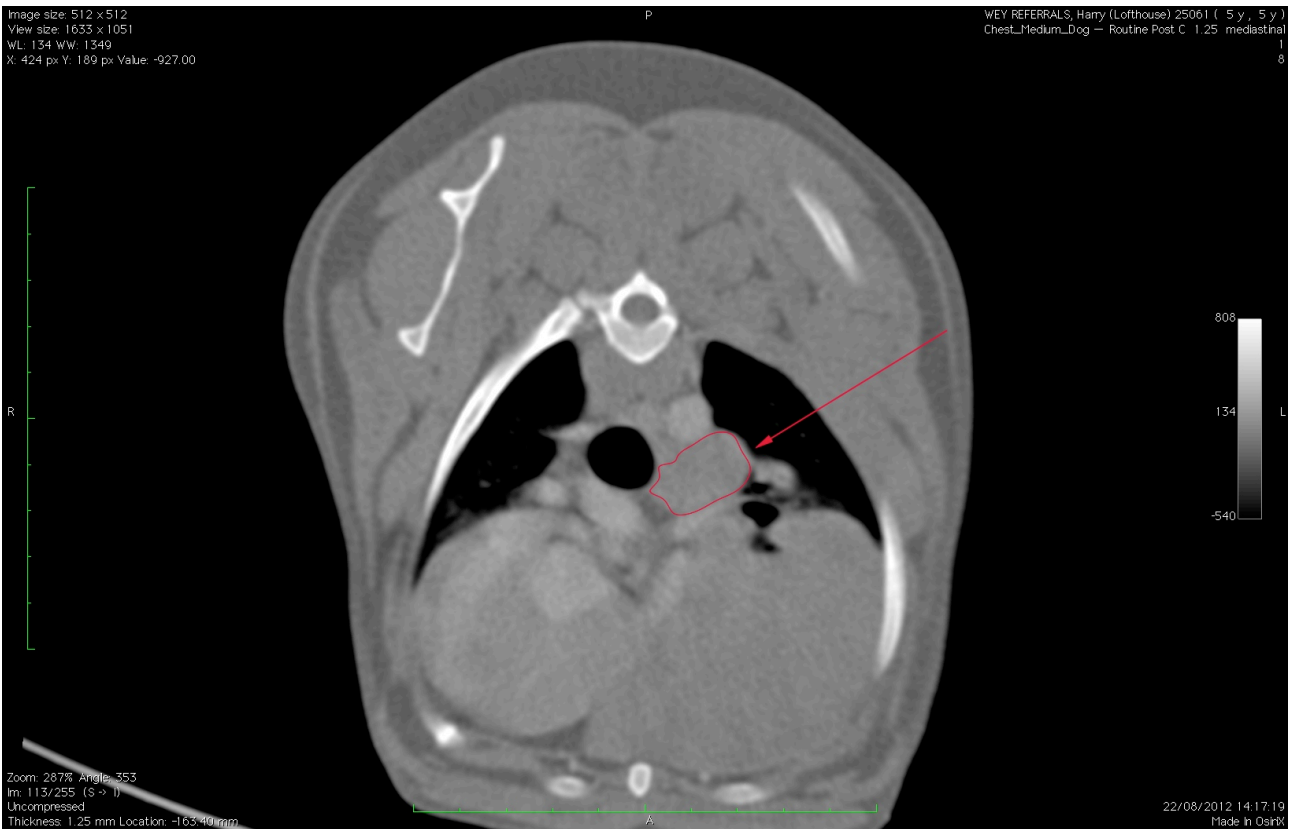


Fig 4: The left bronchial lymph node is also enlarged (red arrow).

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Conclusions:

1. Large pulmonary mass involving both the cranial and caudal parts of the left cranial lung lobe – DDX : Primary lung tumour (eg. pulmonary carcinoma) is most likely.
2. Cranial mediastinal and left tracheobronchial lymphadenopathy- suspicious for metastatic disease.
3. No current evidence of pulmonary metastatic disease

Additional comments:

The mass is pulmonary in origin. Carcinomas account for 97% of primary lung tumours in dogs with adenocarcinomas being more prevalent and squamous cell carcinomas uncommon. Histopathology allows further subclassification (eg. bronchial, bronchoalveolar etc.). Benign tumours and granulomatous conditions are rare and a much less likely differential in this case. Fine needle aspiration or biopsies are required to establish the final diagnosis. Sampling of the lymph nodes is also recommended.

To answer your specific questions; the mass is well-marginated and does not involve any other tissues. Though it involves the caudal subsegment of the left cranial lobe bronchus, it does not extend to the hilus. The mass appears to be surgically resectable based on these images, though the presence of the enlarged nodes is concerning for metastatic disease. Please let us know if you would like a second opinion from a specialist soft tissue surgeon.

Reporting Radiologist:

XXX DVM CertVDI DipECVDI MRCVS
RCVS and European Specialist in Veterinary Diagnostic Imaging

If you have any queries regarding this report then please contact the reporting radiologist on the above email address or contact info@vetctspecialists.com

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