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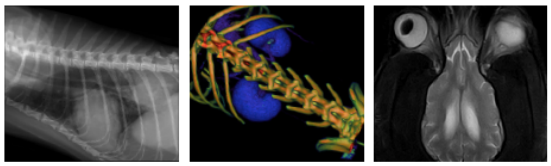


PATIENT

Teddy Cranmer

SPECIES

Canine

BREED

Pomeranian

SEX

Neutered Male

AGE

8 Years 8 Months

INTERPRETED BY

Nele Eley (Ondreka), DVM Dr. med. vet., DipECVDI

HOSPITAL NAME

Neel Vet Hospital

REFERRING VET

Dr. Deepan Kishore

INVOICE

33391

DATE

12/9/21

PRESENTING CLINICAL SIGNS

Primary Veterinarian:Dr. Paris Gilbert Hospital:Neel Veterinary Hospital Patient:Teddy Cranmer Signalment:8 years old MN Pomeranian History:History of chronic cough, tracheal collapse (> 5 years) Medications:Hydrocodone Diagnostic Tests: Nov 20th CBC: WBC 29,400, neuts/monos, Hct 46%, plts 319,000 Chem: WNL UA: 1.038, pH 8, ketonuria, no active sediment Radiographs, thoracic, 3 views: Right caudal lung lobe soft tissue mass (solitary?) PhysicalExam Reported:Not reported Discussion: 1. There is a right caudal lung lobe mass, uncertain if there is a second mass in the same lobe or lobulated solitary mass (on left lateral and V/D views). Recommend radiologist review. 2. Large solitary lung masses are highly likely to be cancerous, commonly carcinomas (adenocarcinoma, bronchoalveolar carcinoma, less commonly squamous cell carcinoma) or histiocytic sarcoma. 3. A lung mass FNA/cytology can be considered, but these may be non-diagnostic, the recommended treatment is similar for all lung masses, and there is a risk of tumor seeding from FNAs.An abdominal ultrasound should be considered to complete the patient evaluation and ensure that other diseases or masses are not identified prior to further treatment. A thoracic, or whole body, CT is recommended to complete the evaluation for any additional lung nodules and for evaluation of tracheobronchial LNs. Abdominal US is not performed if a whole body CT is pursued. 4. Surgery and lung lobectomy is the recommended treatment, commonly a right sided thoracotomy, can consider thoracoscopy is available. Lymphadenectomy of enlarged LNs is also recommended for histopathology evaluation. 5. The prognosis (median survival time or MST) in dogs with lung tumors following surgery depends on the tumor status (solitary T1, 2 yrs, versus multiple masses T2, 6 mo. vs masses invading into other tissuesT3, 1-2 mo.) as well as tumor size (< 5 cm: 20 mo. vs> 5 cm: 8 mo.). The LN status is also prognostic (N0, 15 mo. vs N1, 1-2 mo.). Clinical signs at diagnosis is a prognostic factor but cannot be used in this dog due to the previous long-standing cough. Lastly, tumor type (adeno/broncho carcinoma 19 mo. vs squamous cell carcinoma 8 mo.) and grade are prognostic in dogs (grade I 2 yrs, grade II 8 mo., grade III < 1 mo.) 6. Unfortunately, other than tumor size (measurement not provided) and LN assessment from CT imaging, all other information is obtained only after surgery is performed and histopathology is available. 7. Chemotherapy is recommended after surgery in dogs with higher grade tumors and/or positive LNs, but there are few studies in dogs. Vinorelbine or Carboplatin are the agents commonly used, frequently along with NSAIDS (unless Prednisone is indicated). Chemotherapy has also been used as palliative treatment if owners decline surgery. Metronomic therapy using low dose Cyclophosphamide can also be considered but data is not available in dogs with lung tumors.

COMPUTED TOMOGRAPHIC STUDY OF THE NECK, THORAX & ABDOMEN

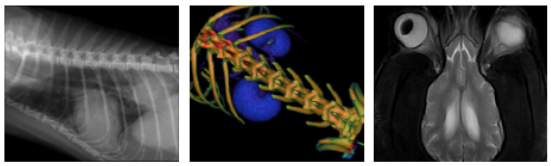
Plain and post-contrast studies provided for review.

COMPUTED TOMOGRAPHIC FINDINGS

Thorax

A large, bilobed, soft tissue attenuating mass is seen in the right caudal lung lobe. The mass measures approximately 5.0 cm x 4.0 cm and is situated between the caudal vena cava and main lobar bronchus. It splays the birfurcation between the right caudal and accessory main lobar bronchi. Severe bronchial compression is noted as well as peripheral atelectasis. No evidence of additional nodules or masses seen in the remainder of the lung. There are occasional interstitial bands and mild generalized bronchial wall thickening is noted.

The mediastinal lymph nodes present within normal limits.



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Abdomen

The serosal fat presents normal attenuation behavior. There is no evidence of peritoneal effusion or peritonitis.

Small mineral attenuating structures are seen within the renal diverticuli of both kidneys. The renal size is considered within normal limits on both sides. Multiple small cortical renal cysts are seen bilaterally. There is no evidence of pyelectasia.

Mild generalized thickening of the urinary bladder wall is noted.

The adrenal glands are within normal limits for size, shape and organ architecture.

The spleen presents mild generalized enlargement which is presumed to be related to congestion under general anesthesia. Occasional small, non-expansile, hyperattenuating nodules are seen in the splenic hilus.

The liver presents with normal shape, even surface, uniformly attenuating parenchyma and homogeneous contrast enhancement, unremarkable.

The pancreas is evenly contoured, the pancreatic parenchyma is homogeneous and presents uniform contrast enhancement.

The position, delineation, wall and content of the gastrointestinal tract are considered within normal limits throughout.

The bony and surrounding soft tissue structures reveal no abnormalities.

Neck

Both lobes of the thyroid gland are seen and present within normal limits.

The cervical lymph nodes present within normal limits.

COMPUTED TOMOGRAPHIC DIAGNOSIS

- Single right caudal pulmonary soft tissue mass with severe bronchial compression
- No evidence of additional pulmonary nodules or masses
- No evidence of mediastinal lymphadenomegaly
- Bilateral hypercalcemic nephropathy with presumed degenerative cortical cysts
- Urinary bladder wall thickening – compatible with chronic cystitis
- Splenic nodules

INTERPRETATION OF FINDINGS & FURTHER RECOMMENDATIONS

The CT study confirms a solitary mass within the right caudal lobe. No additional nodules or masses are seen. Differential diagnosis includes primary neoplasia of the lung such as bronchoalveolar adenocarcinoma. Secondary neoplasia such as histiocytic sarcoma cannot be ruled out but is thought less likely. The remainder of the lung reveals no evidence of nodules or masses. Age related changes of the pulmonary interstitium and bronchial tree are noted. The splenic nodules are likely to represent benign geriatric myelolipomas. However, metastatic or other neoplastic disease cannot be ruled out entirely.

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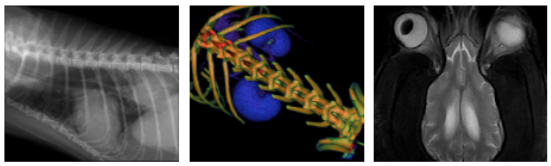

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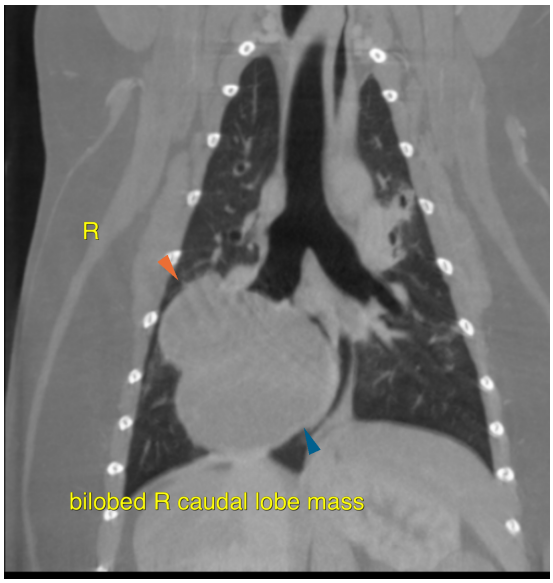

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance please contact me.

Nele Eley (Ondreka), DVM, Dr. med. vet., DipECVDI
European Specialist in Veterinary Diagnostic Imaging, Cert. Radiology,
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