



**PATIENT PRESENTING CLINICAL SIGNS**

**PATIENT**  
Theodore McGuire

**SPECIES**  
Canine

**BREED**  
Beagle

**SEX**  
MN

**AGE**  
8 Years

Theodore presented for evaluation of a left facial/neck mass. The mass was initially noticed in March 2022. The mass was initially 3 x 2 cm but appears to have increased in size over the last few months. The mass has been causing him to have difficulty swallowing. Some left ocular discharge has been noticed. The owners have noticed that his personality has changed and energy levels have decreased over time. Normal urination and defecation. Theodore was seen by RDVM and a fine needle aspirates were performed. Cytology revealed: Exfoliation of fragile epithelial cells (most compatible with thyroid gland). Reactive lymphoid tissue. He has been treated with prednisone, methimazole and clindamycin with no significant improvement. Theodore has been otherwise healthy throughout his life. Theodore current medications tapazole (methimazole) daily, clindamycin daily, prednisone every other day with no significant improvement. Theodore is currently eating homemade meatloaf (oatmeal, peas, egg, lean meat), with no history of allergies. Theodore is UTD on vaccines (might be overdue). Abnormal PE/Chem/CBC/UA Results: Last bloodwork performed in March 2020 revealed hyperglobulinemia (53) with mild hypoalbuminemia (21), otherwise unremarkable. T4 was normal. 4Dx testing was negative. Thoracic radiographs were performed in March 2022 in which no obvious pulmonary metastasis was observed. Focal ultrasound scan of the mass was suspicious for a thyroid tumor. pale pink/ muddy mucous membranes and tongue Large, firm, poorly demarcated ~12-15 cm mass over left mandibular/ ventral cervical region

**COMPUTED TOMOGRAPHIC STUDY OF THE HEAD, NECK, & THORAX**

Plain and post contrast studies in soft tissue, lung, and bone windows available for review.

**INTERPRETED BY COMPUTED TOMOGRAPHIC FINDINGS**

Nele Eley, DVM  
Dr. med. Vet. DipECVDI

**Head & Neck**

An approximately 6 cm long, 4 cm wide, and 5 cm high mass is seen in the left upper neck. The lesion margins are ill-defined. Extensive superficial vascular anastomoses are seen as well as heterogeneous contrast enhancement and multiple finger like extensions of the mass into the periphery. The mass also presents extensive extension into the cranial vault and upper cervical vertebral canal by means of aggressive osteolysis through the vertebral neuroforamina, foramen magnum, and skull base. A severe intracranial extraaxial mass effect is noted within the cavernous sinus, onto the brainstem, onto the upper cervical spinal cord from a ventral and left aspect, larynx, and retropharynx from a left dorsal aspect. The left tympanic bulla contains part of the contrast enhancing mass and fluid attenuating material. Severe vascular predominantly venous invasion of the mass into the left facial, lingual, and jugular veins is seen.

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Partners

**REFERRING VET**

Dr. Jeffery Biskup

The left retropharyngeal lymph node cannot be delineated from the mass. The left submandibular lymph nodes are mildly enlarged.

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

A small subcutaneous lipoma is seen in the upper ventral neck to the left of the midline.

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11-22-22

**Thorax**

The cranial mediastinal lymph nodes are mildly enlarged.



**PATIENT**

Multifocal ventral peripheral interstitial infiltrate of the lung is seen within the right cranial and right accessory lung lobe.

Theodore McGuire

A large amount of mineral attenuating material is seen in the gallbladder.

**SPECIES**

The patient is obese.

Canine

**COMPUTED TOMOGRAPHIC DIAGNOSIS**

**BREED**

- Large irregular shaped and ill-defined soft tissue mass in the upper neck with retropharyngeal and laryngeal mass effect, and intracranial as well as intraspinal extension with mass effect within the cavernous sinus, onto the brainstem, and onto the upper cervical spinal cord.
- Mild left submandibular lymphadenomegaly.
- Multifocal peripheral interstitial infiltrate of the lung.
- Mild cranial mediastinal lymphadenomegaly.

Beagle

**SEX**

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

MN

The CT study reveals a mass of nonthyroidal origin with aggressive biological behavior in the upper neck. The mass presents intracranial extension as well as extension into the upper cervical vertebral canal. The CT findings are highly suggestive for carotid body tumor which typically arises from the baroreceptors of the carotid sinus. Extensive vascular invasion, aggressive osteolysis, and intracranial, as well as intraspinal extension are noted.

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**INTERPRETED BY**

The mild submandibular and cranial mediastinal lymphadenomegaly are compatible with reactive hyperplasia. Early metastatic disease cannot be ruled out but is thought by far less likely.

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The mass is nonresectable. The long term prognosis is poor.

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The multiple peripheral interstitial pulmonary infiltrate is suggestive for atelectasis. Metastatic disease cannot be ruled out entirely but is thought by far less likely.

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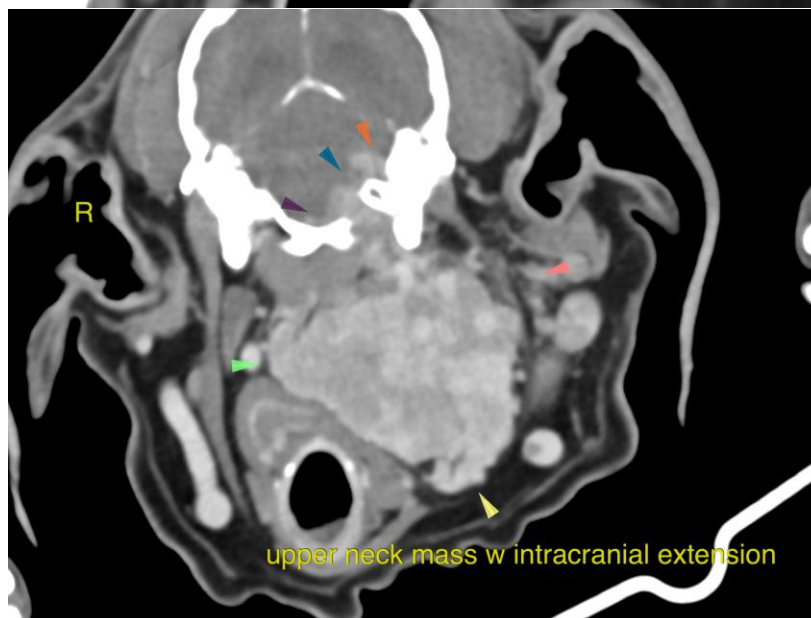
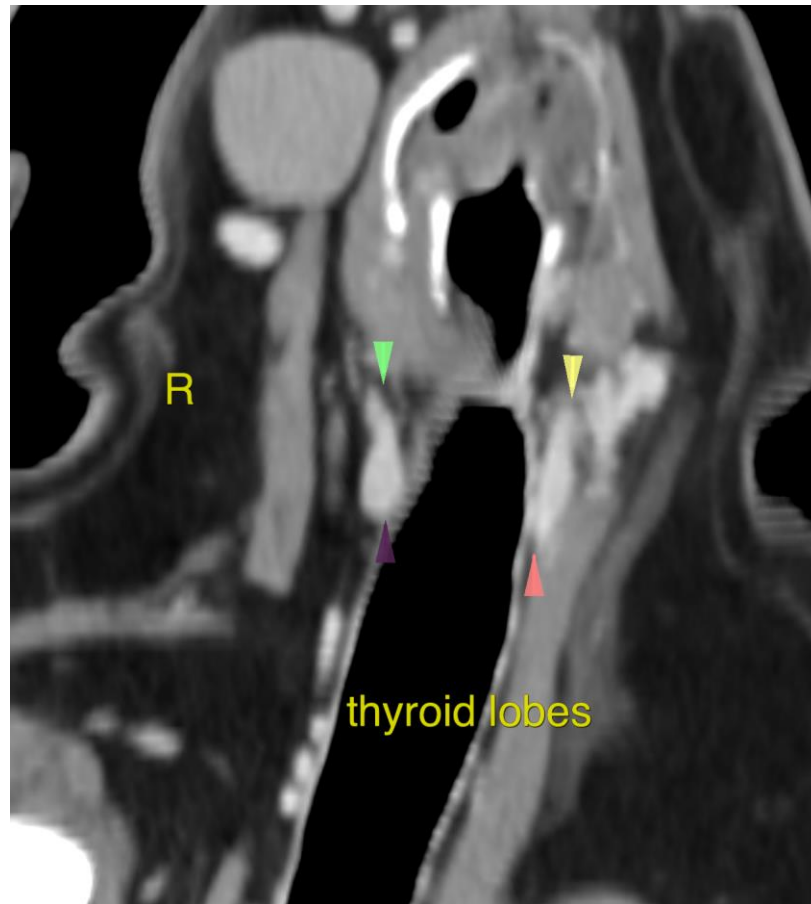
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upper neck mass w intracranial extension



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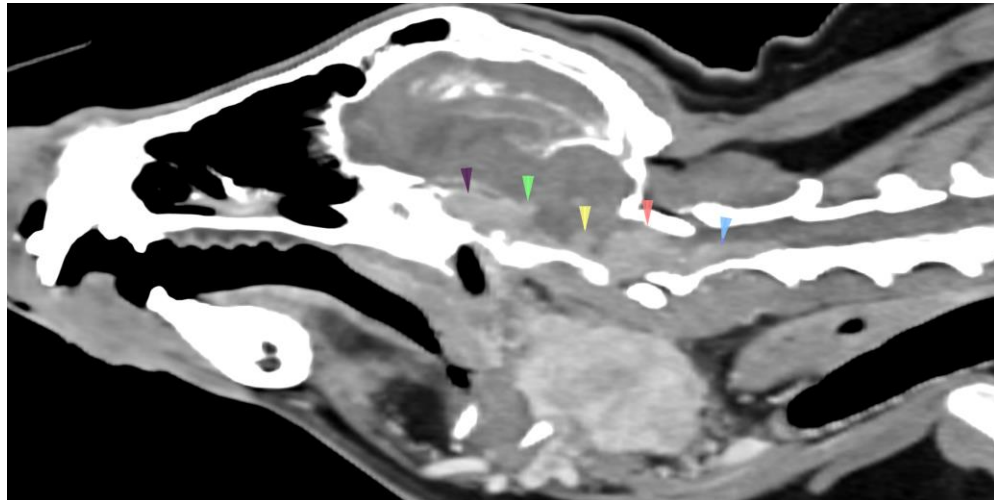
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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**, DVM, Dr. med. vet., DipECVDI  
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