



## PATIENT

Nash Moore

## SPECIES

Canine

## BREED

Golden Retriever

## SEX

Male Neutered

## AGE

11Y, 11M

## WEIGHT

31kg

## INTERPRETED BY

Sebastian Schaub, DVM  
Dr. med. vet.  
DipECVDI

## IMAGING PERFORMED BY

Emily Johnson

## HOSPITAL NAME

Bluegrass Veterinary  
Specialists

## REFERRING VET

Dr. Jonathan Blakely

## INVOICE

72680

## DATE

11-19-25

## PRESENTING CLINICAL SIGNS

Presented to IM and Surgery for weight loss and severe hypercalcemia with no known cause. Michigan State Malignancy panel sent out, indicative of primary hyperparathyroidism. Scan to determine location of parathyroid gland and scan for any signs of malignancy additionally. Abnormal PE/Chem/CBC/UA Results: Ionized calcium 1.9 mmol/L

## COMPUTED TOMOGRAPHY OF THE NECK, THORAX AND ABDOMEN

A pre- and post-contrast CT study of the neck, thorax and abdomen in a bone and soft tissue reconstruction is provided for review.

## COMPUTED TOMOGRAPHIC FINDINGS

### Neck

Both temporomandibular joints present congruent joint spaces with even subchondral bone surfaces and are considered within normal limits.

The submandibular and medial retropharyngeal lymph nodes are small and elongated with a normal short-to-long-axis-ratio is < 0.5, the attenuation and contrast enhancement pattern is uniform.

In the caudal third of the left thyroid gland, a uniform soft tissue attenuating and moderate contrast enhancing nodule is seen, measuring 10 x 8 x 18 mm and protruding beyond the surface of the left thyroid gland.

### Thorax

Along the thoracic spine, multifocal spondylosis formation is seen.

Along the caudal segment of the thoracic spine, multiple intervertebral discs are protruding into the vertebral canal, occupying approximately <15% of the cross-sectional area of the vertebral canal at the same level.

Along the thoracic and abdominal wall, multiple well-defined, variable sized lipomas are seen.

The sternal, cranial mediastinal and tracheobronchial lymph nodes are small elongated with a normal short-to-long-axis-ratio is < 0.5, the attenuation and contrast enhancement pattern is uniform and considered within normal limits.

The cardiovascular structures including the pulmonary vasculature are within normal limits.

The bronchial tree presents with regular branching and tapers uniformly towards the periphery as expected, the bronchial walls are thin and smooth. The bronchus-to-artery ratio is within normal limits.

In the dorsal aspect of the accessory lung lobe, a well-defined, hyperattenuating (approx. 400 HU) nodule is seen; measuring 4 mm in diameter. In the cranial aspect of the left caudal lung lobe, a roundish, well-defined, gas attenuating lesion, demarcated by a thin soft tissue attenuating capsule is visible; measuring 14 mm in diameter. The remainder of the lung parenchyma presents the expected architecture and attenuation behavior.

Small incidental gas pockets are seen within the esophageal lumen; there is no evidence of abnormal dilation.

### Abdomen

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



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Both kidneys present within normal limits for size, shape and organ architecture. Faint mineralization along the recesses of the renal pelvis are appreciated. After contrast administration, a bilaterally symmetric and uniform nephro- and pyelogram is noted. In the urinary bladder, multiple, gravity dependent, mineral attenuating calculi are seen; measuring up to 6 mm in size.

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

Both liver and spleen present 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.

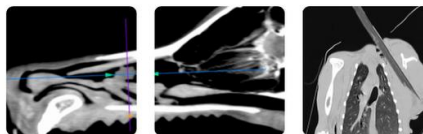
## COMPUTED TOMOGRAPHIC DIAGNOSIS

- Intraparenchymal nodule left thyroid gland
- Solitary hyperattenuating pulmonary nodule
- Cystolithiasis without mechanical obstruction – secondary to the hypercalcemia
- Mild nephrolithiasis without mechanical obstruction
- Multiple lipomas along the thoracic and abdominal wall
- Multifocal intervertebral disc herniation along the caudal thoracic spine without compressive myelopathy
- Spondylosis deformans

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The left thyroid nodule in combination with the presenting clinical signs is compatible with functional neoplastic transformation of the caudal parathyroid gland – such as adenoma or less likely adenocarcinoma. The finding is a plausible explanation for the hypercalcemia.

The solitary hyperattenuating pulmonary nodule is most consistent with incomplete mineralized pulmonary osteoma or less likely granuloma. I consider the odds for fibrosis or metastatic disease low.



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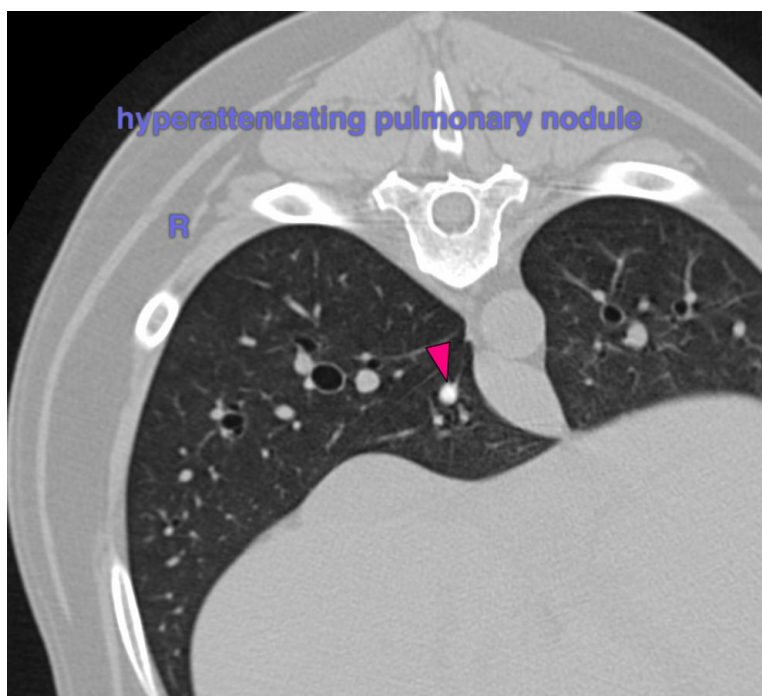
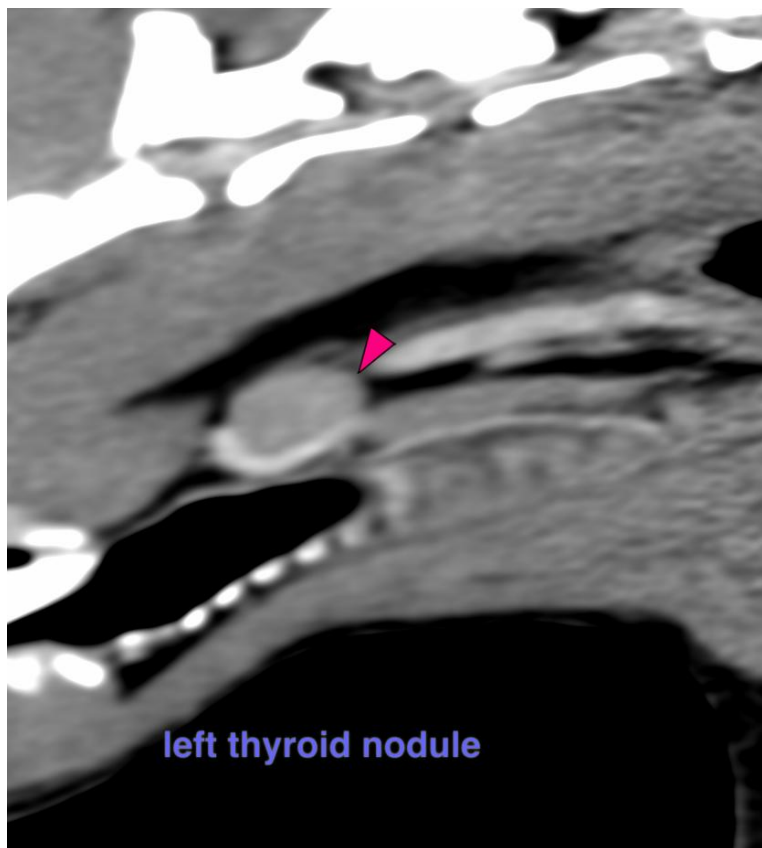
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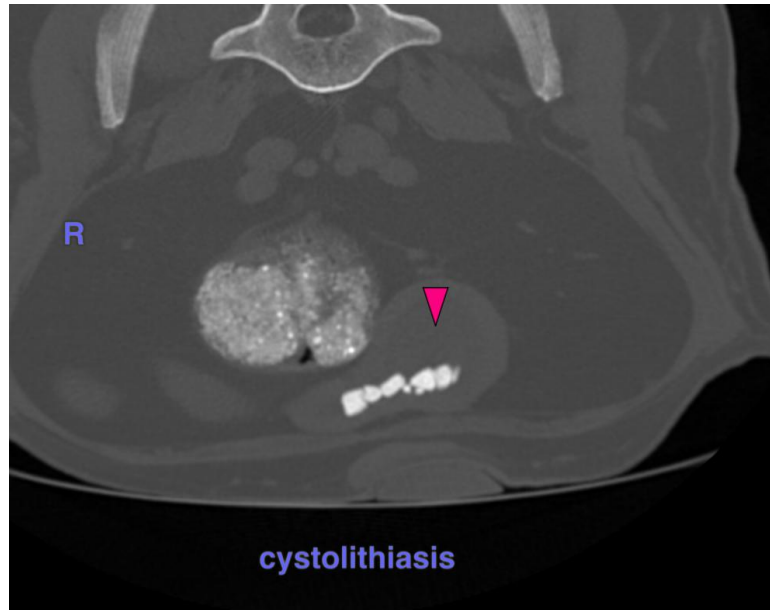
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

**Sebastian Schaub**, Sebastian Schaub, DVM, Dr. med. vet. DipECVDI  
[info@sonopath.com](mailto:info@sonopath.com)