

**DATE PRESENTING CLINICAL SIGNS**

2/16/23

P presented for increased panting and dry, hacking cough; hx of gradual decline in energy and anxiety; radiographs reveal thoracic lesion (r/o mediastinal v pulmonary mass v other) and abdominal organomegaly; O requests ultrasound to further evaluate abdomen and r/o heart based tumor w/ a limited second cavity scan

PATIENT

Doji Penoyar

SPECIES

Canine

BREED

Labrador X

SEX

Neutered Male

AGE

5/1/12

WEIGHT

65 Pounds

INTERPRETED BY

Kathleen Sennello DVM,
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(Small Animal Internal
Medicine)

HOSPITAL NAME

Bayside AMC

REFERRING VET

Dr. Buchanan

INVOICE

45306

Current Medications: Yunnan Baiyao, Cough tabs.

Lab Results: See attached.

Radiographs: R/O space occupying mediastinal v pulmonary lesion/mass causing ventral deviation of trachea and cardiac silhouette; cranial organomegaly (r/o liver v spleen) deviating gastric axis dorsally.

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Torbugesic IV.

Stat Report: Not requested.

Imaging Performed By: Stephanie Warga RDCS, RVT.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

The urinary bladder is moderately distended with anechoic urine. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi.

The prostate is normal in size (1.1 cm) and shape for this neutered male dog. The parenchyma is homogenous and the external margins are smooth. The prostatic urethra appears normal with no evidence of irregularity, invasion, mass effect or calculi.

The left kidney has a normal shape and size (6.39 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (6.22 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.70 cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

The right adrenal gland is normal in size measuring 0.77 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

Spleen

The spleen is subjectively normal in size, echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. There is a hypoechoic slightly cystic appearing nodule visualized in the mid body of the spleen measuring 1.25 cm x 1.23 cm.

Liver

The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. There is a hyperechoic nodule visualized deep adjacent to the diaphragm measuring 3.68 cm in diameter.

The gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are mild and primarily anechoic. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

There is a hard shadowing focal object visualized within the gastric lumen measuring 3.68 cm with minimal accompanying fluid. The visible portions of the gastric wall appear normal with no evidence of thickening or irregularity. No evidence of obstruction is present at this time.

The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. Jejunum wall measures 0.33 cm. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

Pancreas

The pancreas is normal and isoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

Thorax

The right auricle and pericardium were visualized and were unremarkable. No obvious pathology is visualized. If cardiac function evaluation is desired a full echocardiogram is warranted.

There is a large, solid, irregular, heterogeneous mass effect measuring 12.11 cm x 12.35 cm in the right mid thoracic region. If an available window for aspiration is present, this could be considered.

ULTRASONOGRAPHIC FINDINGS

- Hypoechoic splenic nodule – There is a non-cavitated, hypoechoic splenic nodule visualized. Differentials include lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to get a definitive diagnosis. This lesion deforms the splenic capsule somewhat, increasing concern for possible malignancy.
- Heterogeneous liver with a hyperechoic nodule – The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy. The appearance of the hyperechoic nodule trends towards a more benign lesion, although underlying neoplasia cannot be ruled out.

- Hard shadowing object visualized within the gastric lumen – This is a discrete structure that could be consistent with a large treat, ingested foreign material, etc. Correlate with abdominal radiographs and clinical signs.
- Right-sided thoracic mass effect – Consider a fine needle aspirate if a safe window can be obtained for sampling.

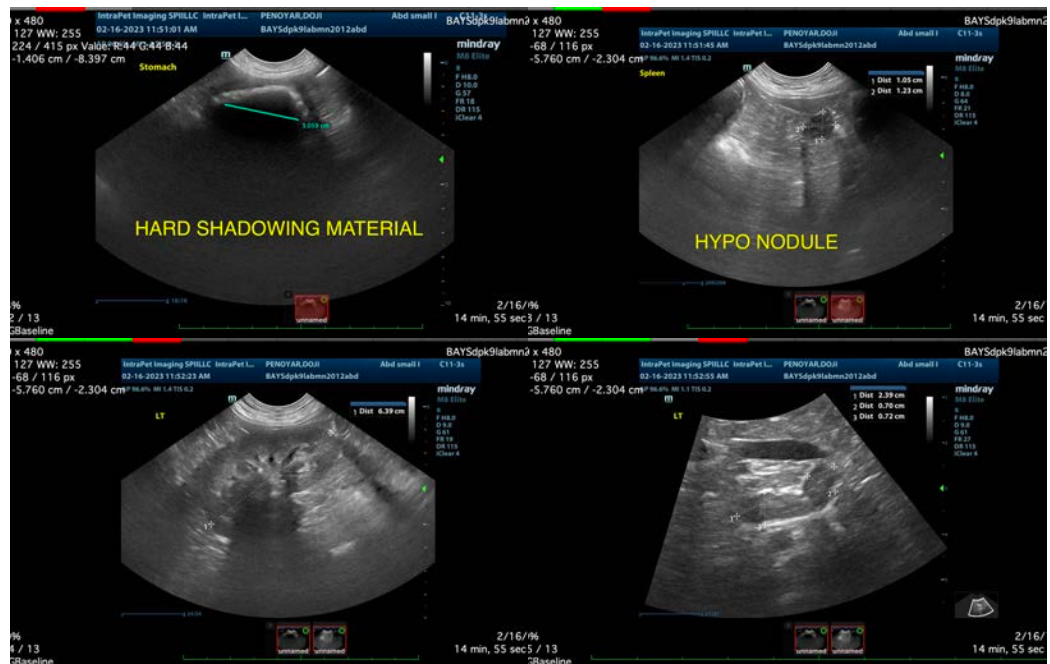
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

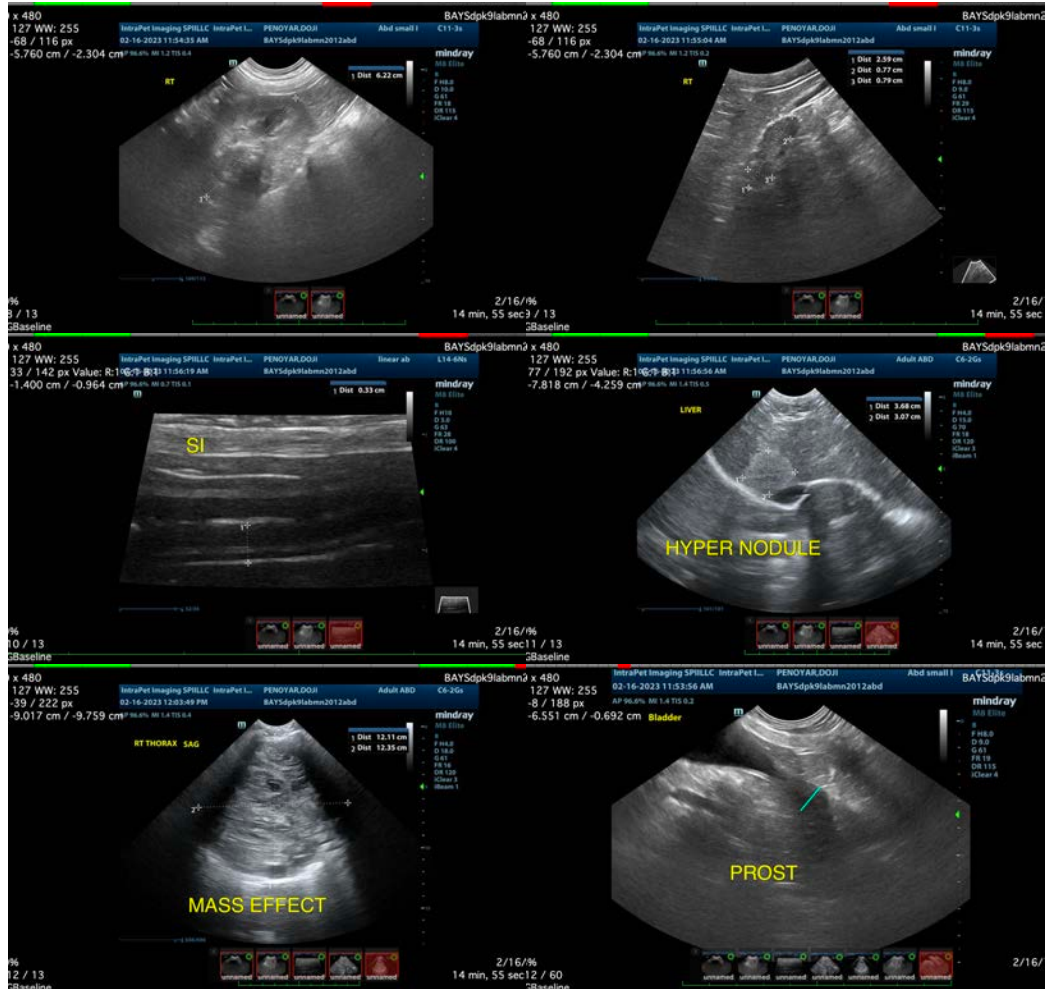
There is a hypochoic nodule visualized within the spleen, which deviates the splenic capsule somewhat. Consider a fine needle aspirate of this lesion.

The liver appears somewhat heterogeneous with a hyperechoic nodule. These are non-specific findings and the nodule does not have significant criteria for malignancy. Recommend continued monitoring.

There is foreign shadowing material visualized within the gastric lumen. This could be ingesta, foreign material, etc. Correlate with abdominal radiographs, clinical signs, and consider serial imaging, looking for the persistence of this structure. There is no evidence of an obstruction at this time.

There is a large mass effect visualized in the right side of the thorax. This could represent a benign or neoplastic lesion, or even severely diseased lung tissue. The lesions described in the abdomen could represent metastatic disease or be concurrent non-related lesions.





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.

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