



**PATIENT PRESENTING CLINICAL SIGNS**

Lilly Holladay Clinical Exam Findings/PE: muffled heart sounds, tachypnea, dyspnea, cyanosis, sternal recumbency  
TFAST/AFAST- pericardial effusion, no pleural or peritoneal effusion

**SPECIES**

Canine

Abnormal lab-work values: Plt 56 K/uL, PT 19 (11-17), aptt wnl, mildly increased gluc, Na, ALT, mildly decreased TP

**BREED**

Golden Retriever

Radiographic Findings/Three View Abdominal Findings:  
Orthogonal projections of the thorax and abdomen (Seven total images), dated 07/13/23, are available.  
There are multiple pulmonary soft-tissue nodules.

**SEX**

Female Spayed

The cardiovascular, mediastinal structures and plural space are normal.  
The gastrointestinal tract contains no evidence of segmental dilation or discrete foreign material. The visible margins of the liver, spleen, kidneys and urinary bladder are normal. Serosal contrast is appropriate.  
The included musculoskeletal structures are unremarkable.

**AGE**

8.22.17

Assessment:  
1. Pulmonary soft tissue nodules - this is most consistent with metastatic neoplasia. Fungal granulomatous disease is considered less likely.

**WEIGHT**

35.3 kg

2. Unremarkable abdomen.  
If not already performed, consider submission of the pericardial effusion reported for fluid analysis, cytology and culture. Consider abdominal ultrasonography as a next imaging step too further evaluate for a primary tumor. If ultrasound is negative, consider MRI of the brain as a next imaging step given the neurologic status.

**INTERPRETED BY**

Andrea Nicastro, DVM,  
Diplomate ACVIM (*Small Animal Internal Medicine*)

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**IMAGING PERFORMED BY**

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**Urinary System**

The bladder is distended. A scant amount of echogenic debris is suspended within the lumen. No cystic calculi are observed. The region of the trigone and the proximal urethra, visible to a depth of 2 cm, are normal.

**HOSPITAL NAME**

Blue Pearl ER MP

The left kidney is normal in size (6.47 cm in length) with a normal shape, architecture and smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with normal corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**REFERRING VET**

Graham, ER

The right kidney is normal in size (7.46 cm in length) with a normal shape, architecture and smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with normal corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**INVOICE**

13671

**Adrenal Glands**  
The left adrenal gland is normal in size (0.55 cm at cranial pole) (0.59 cm at caudal pole) with a normal shape and homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

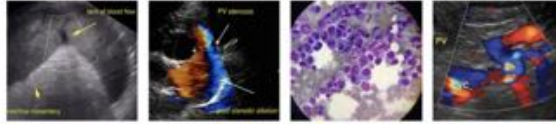
**DATE**

7.13.23

The right adrenal gland is in normal size (1.25 cm at cranial pole) (0.60 cm at caudal pole) with a normal shape and homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

**Spleen**

The spleen is normal in size (2.24 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic



**PATIENT** vasculature is normal.

Lilly Holladay **Liver**

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Golden Retriever

**SEX**

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**AGE**

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The liver is subjectively normal in size with normal contours and structure. There is appropriate echogenicity and echotexture. No overt structural evidence of inflammatory, infiltrative, or regenerative pathology is evident. Vascular and biliary tracts are of normal volume with no evidence of congestion. No pathological hepatic lymphadenopathy observed. The portal vein to caudal vena cava ratio is approximately 1: 1.

The gall bladder lumen is moderately distended. The wall is thin and smooth. A small amount of aggregated, mineralized suspended debris +/- small choleliths are observed within the lumen. The cystic and common bile ducts are normal/not seen.

**Gastrointestinal**

The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is not distended. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The pyloric outflow tract is patent. The small intestinal lumen is not dilated. The small intestinal wall is normal in thickness with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. There is no evidence of an obstructive pattern.

**Pancreas**

The region of the pancreas is isoechoic relative to surrounding omental fat. No obvious parenchymal abnormalities are observed. There is no evidence of regional inflammation or effusion.

**Free Abdomen**

The peritoneal cavity is normal. There is no evidence of inflammation or effusion. The abdominal lymph nodes are normal/not visible.

**Other**

B-lines are observed within the visualized portion of the thorax.

**ULTRASONOGRAPHIC FINDINGS**

**Primary Findings**

- Mineralized gall bladder debris +/- tiny choleliths (nonobstructive).
- The B-lines within the thoracic cavity are consistent with pulmonary parenchymal disease.

\*There is no obvious evidence of neoplasia in the abdomen.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

- Further recommendations should be based on the echocardiogram report.



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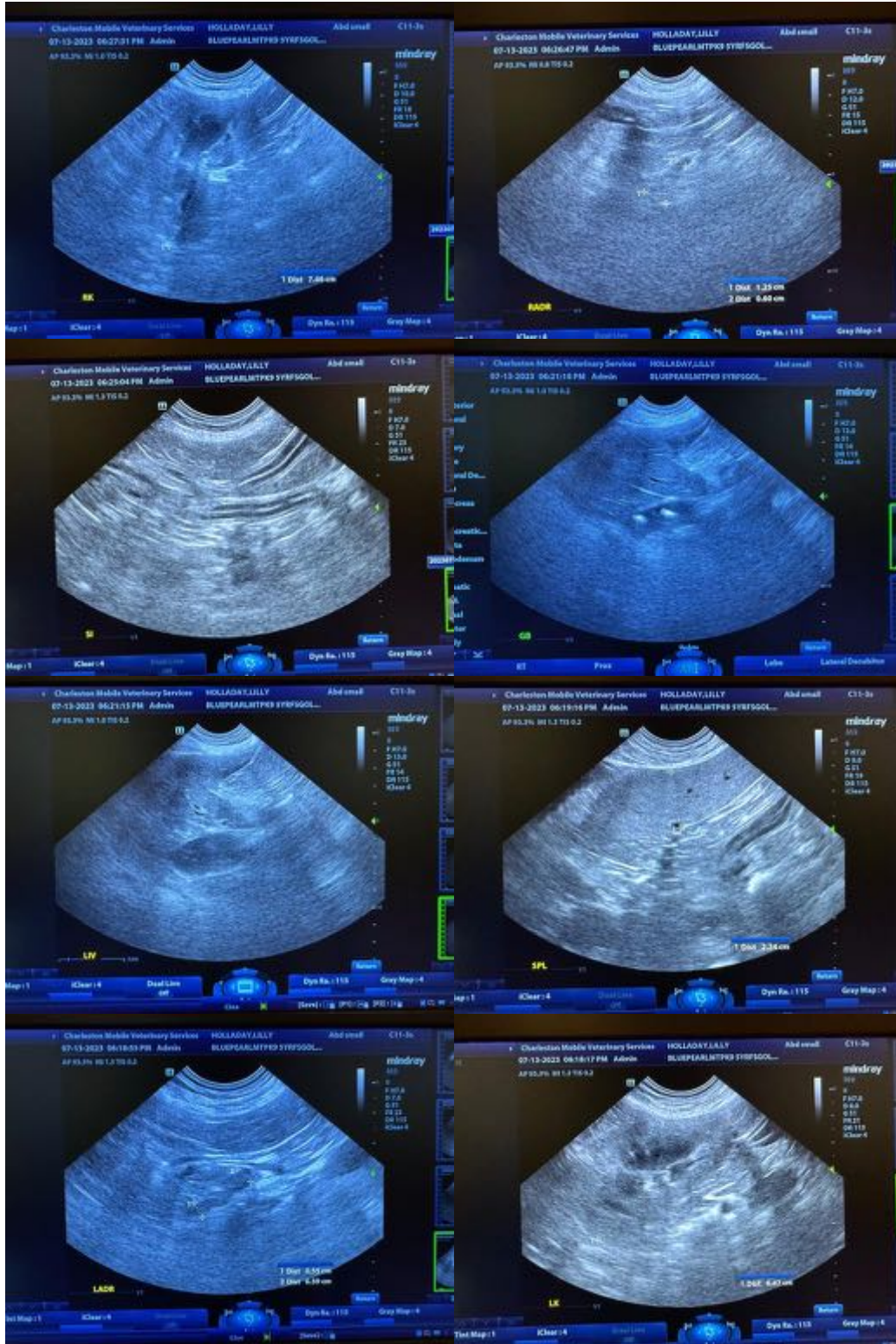
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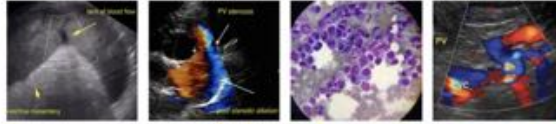
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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