

**PATIENT PRESENTING CLINICAL SIGNS**

Angela Acuna

History: Temp reached 106 the other night- elevated liver values. Angela's ALT has gone down 56 pts, but her ALP has gone up 37 pts. Her TP and Glob levels have both gone down. after starting Denamarin a month ago- needs growth removal- 1.5 cm x 1.5 cm x 1 cm perianal mass on the aspect of the anus Dorsal lumbar region has healing bacteria collarettes Multiple skin mass all over the body  
Abnormal PE/Chem/CBC/UA Results: ^ALT = 219 (18-121), ^ALP = 340 (5-160), ^TP = 7.6 (5.5-7.6), ^Glob = 4.3 (2.4-4.0)

**SPECIES**

Canine

**BREED**

Cocker spaniel

**SEX**

Female, spayed

**AGE**

13 Years

**WEIGHT**

32 Pounds

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

*Urinary System*

The urinary bladder is moderately distended. The wall is normal in thickness with a smooth mucosal surface. There is a suspected tiny (0.25 cm) cystic calculus observed within the lumen. Luminal contents are otherwise mostly anechoic. The region of the trigone and the visible portion of the proximal urethra are normal.

The left kidney is normal size (5.70 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild to moderate loss of corticomedullary distinction. The cortex is hyperechoic. There is no evidence of pyelectasia, infarcts or hydroureter. Hyperechoic shadowing diverticular foci are visualized.

The right kidney is normal size (6.82 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild to moderate loss of corticomedullary distinction. The cortex is hyperechoic. There is no evidence of pyelectasia, infarcts or hydroureter. Hyperechoic shadowing diverticular foci are visualized.

**INTERPRETED BY**

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

*Adrenal Glands*

The left adrenal gland is mildly enlarged (0.66 cm at cranial pole) (0.75 cm at caudal pole) (2.38 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

**IMAGING PERFORMED BY**

Loetitia Saint-Jacques, RVT

The right adrenal gland is mildly enlarged (0.68 cm at cranial pole) (0.73 cm at caudal pole) (2.25 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

**HOSPITAL NAME**

North Hills VC

*Spleen*

The spleen is subjectively prominent in size (1.77 cm in width at the level of the hilus) with slightly swollen peripheral contours. The parenchyma is severely mottled and heterogeneous in appearance. Splenic vasculature is normal with no evidence of thrombosis.

**REFERRING VET**

Dr. Bagget

*Liver*

The liver is subjectively prominent in size with irregular peripheral contours. The parenchyma is isoechoic relative to the spleen and diffusely heterogeneous in appearance with a few, ill-defined hyperechoic areas. An approximately 4 cm mass is observed on the right side. The mass causes capsular expansion. A 2.6 cm isoechoic mass is also observed in the region of the right medial lobe. Vascular and biliary tracts are of normal volume with no evidence of congestion.

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**DATE**

5/16/22



**PATIENT**

Angela Acuna

The gall bladder lumen is distended. The wall is thickened (up to 0.22 cm), irregular and hyperechoic. An approximately 2.5 cm echogenic mass effect is observed within the lumen. The mass is vascular and heterogeneous in appearance and occupies the majority of the lumen. The cystic and common bile ducts are normal/not seen.

**SPECIES**

Canine

**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 thickness is normal with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. No obstructive disease is noted.

**BREED**

Cocker spaniel

**Pancreas**

**SEX**

Female, spayed

The right limb of the pancreas is visible with normal curvilinear peripheral contours. The parenchyma is largely isoechoic relative to surrounding omental fat and slightly mottled in appearance. The pancreatic duct is visible but not overtly dilated. There is no evidence of peripancreatic inflammation or effusion.

**AGE**

13 Years

**Free Abdomen**

There is no evidence of free fluid. The abdominal lymph nodes are normal/not visible.

**WEIGHT**

32 Pounds

**Other**

A brief echocardiogram reveals no evidence of pericardial effusion or obvious right atrial/auricular mass.

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**ULTRASONOGRAPHIC FINDINGS**

**Primary Findings:**

- Gallbladder mass effect. Neoplasia (i.e., biliary adenocarcinoma) is considered likely with a low possibility of benign pathology.
- The hepatic masses are also concerning for neoplasia (i.e., adenocarcinoma, adenoma). However, a benign process (i.e., excessive regenerative nodular hyperplasia) cannot be completely excluded. The diffuse hepatic parenchymal changes are non-specific and could be secondary to a benign age-related process. Alternatively, metastatic disease may be present.
- The splenic parenchymal changes are concerning for infiltrative neoplasia (i.e., metastatic disease). However, a benign process such as lymphoid hyperplasia or extramedullary hematopoiesis is possible.

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**Secondary Findings:**

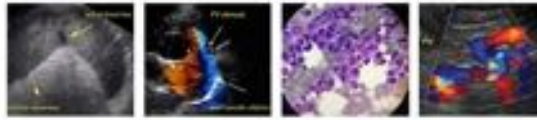
- Mild bilateral adrenomegaly.
- Bilateral chronic age-related renal changes with dystrophic mineralization.
- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- Suspected tiny cystic calculous.

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

- Three-view thoracic radiographs are recommended to assess for pulmonary metastases.
- If an aggressive approach is desired, consider referral to a board-certified surgeon to discuss hepatic mass removal and cholecystectomy and submission of the abnormal tissues for histopathology. An abdominal CT scan would be useful in pre-surgical planning. However, the prognosis is considered guarded, given that multiple masses are present.
- If surgery is not to be pursued, symptomatic care is recommended.

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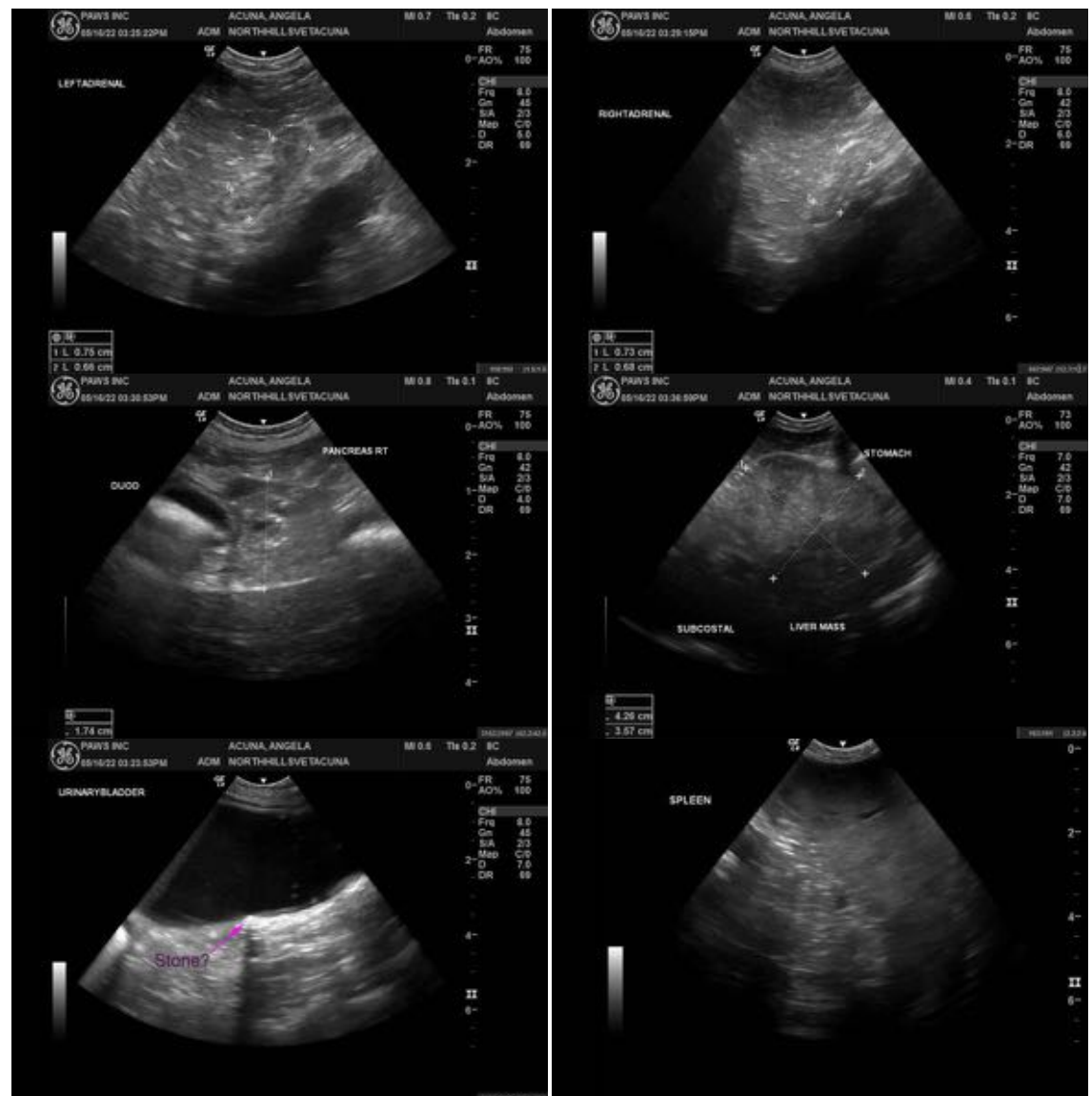
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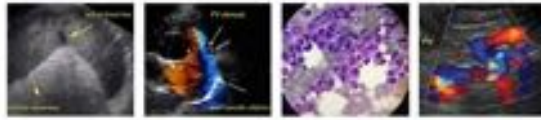
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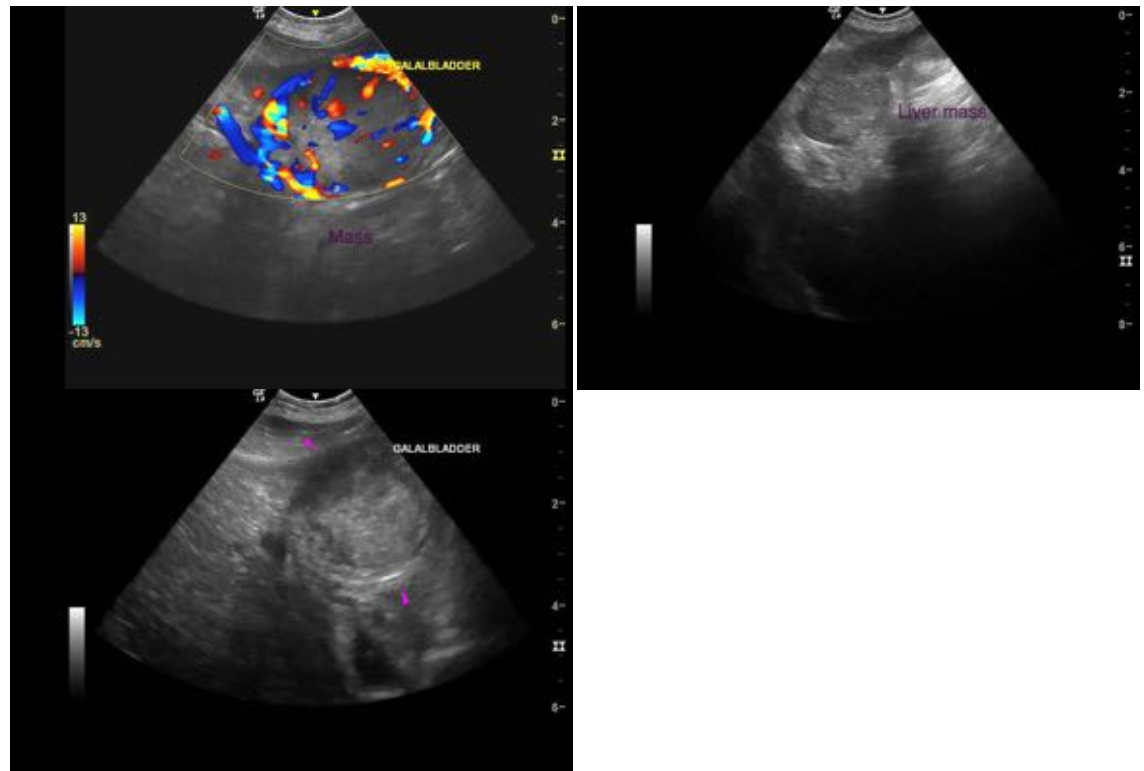
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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