SonoPath
Clinical Sonography & Telecytology
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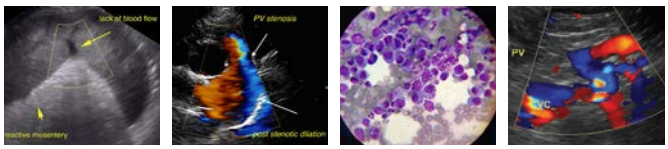

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1-800-838-4268 info@sonopath.com

**PATIENT**
Chloe Good

**SPECIES**
Canine

**BREED**
Boxer X

**SEX**
Spayed Female

**AGE**
12 Years

**WEIGHT**
54 Pounds

**INTERPRETED BY**
Kathleen Sennello DVM, MS, Diplomate ACVIM (Small Animal Internal Medicine)

**IMAGING PERFORMED BY**
Jessica Miller

**HOSPITAL NAME**
Summit Dog and Cat Hospital

**REFERRING VET**
Dr. Lepkowski

**INVOICE**
37919

**DATE**
5/25/22

## PRESENTING CLINICAL SIGNS

On going weight loss and muscle wasting, eating less, Dermal Mass Cell tumor on left thorax. Current meds: Thyro tabs 0.6mg
Abnormal PE/Chem/CBC/UA Results: T4 4.1, ALKP 244, Crea 2.2, WBC 16.2x10^3, Neut 82%, Abs Neuts 13284, Abs Monos 1458, Hemoglobin 9.9, Hematocrit 33%, Microalbumin >30

## 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 left kidney has a normal shape and size (6.22 cm). Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of 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 (6.41 cm). Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of 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 borderline large and irregular in shape, measuring 0.83 cm at the cranial pole, 0.80 cm at the caudal pole, and 2.27 cm in length. It is observed in its normal position cranial to the left renal artery. It is somewhat irregular in appearance in that there are ill-defined nodules associated with the adrenal gland. A hyperechoic nodule towards the cranial pole measured 0.43 cm x 0.44 cm, and a hypoechoic irregular area measuring 0.52 cm x 0.45 cm. There is no obvious vascular involvement.

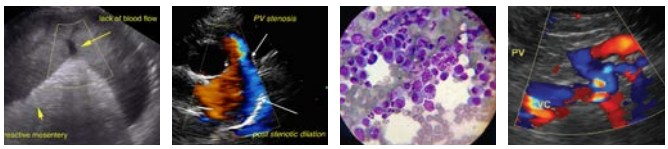
The right adrenal gland is borderline large in size measuring 1.11 cm at the cranial pole, 0.82 cm at the caudal pole, and 2.7 cm in length. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) 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 small distinct hyperechoic lesion measuring 0.52 cm, which is most consistent with a myelolipoma. Towards the tail of the spleen, there is an indistinct, slightly hyperechoic region with a small anechoic center measuring 1.5 cm.

### *Liver*

The liver is large in size, and normal in 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 0.70 cm anechoic cyst visualized within the parenchyma. On the right side of the liver, there is a very large mixed echogenic mass effect measuring >12.0 cm x 11.28 cm.



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

### *Gastrointestinal*

The stomach is moderately dilated with fluid and irregular shadowing material most consistent with normal ingesta and gas. It measures at a normal thickness of <0.7cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layering is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

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. The duodenum measured as normal (between 0.3-0.5cm in wall thickness) and the jejunum measured as normal (between 0.2-0.47cm.) 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*

There is a scant amount of free abdominal fluid. No lymphadenopathy. The omentum is generally of normal echogenicity.

### *Other*

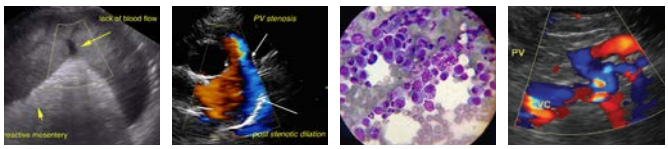
A brief view of the heart was submitted. No significant pericardial effusion was seen.

## PRIMARY FINDINGS

- Borderline bilateral adrenomegaly with an irregular/nodular left adrenal gland – The bilateral adrenomegaly could be consistent with bilateral hyperplasia (e.g., secondary to pituitary-dependent hyperadrenocorticism), bilateral infiltrative neoplasia, inflammatory adrenal disease, other. Correlation with clinical findings is recommended. The irregular nature of the left adrenal gland is uncertain. Recommend blood pressure evaluation and continued monitoring with ultrasound. If these lesions are progressing, a primary mass lesion could be possible.

- Focal hyperechoic lesion visualized within the spleen, and secondary ill-defined hyperechoic region towards the tail of the spleen - The hyperechoic focal lesion is most consistent with a benign myelolipoma. The less distinct lesion visualized in the tail is of uncertain significance. Consider either a fine needle aspirate or continued monitoring with ultrasound.

- Large, heterogeneous liver with large mixed echogenic right-sided mass effect – most consistent with a primary hepatic mass. Adenoma or carcinoma are most likely, but other differentials exist.



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- Moderate shadowing debris within the gastric lumen – Correlate with feedings history and abdominal radiographs. If adequately fasted then consider such differentials as delayed gastric emptying or a partial outflow tract obstruction (none visualized).
- Scant anechoic free fluid.

## SECONDARY FINDINGS

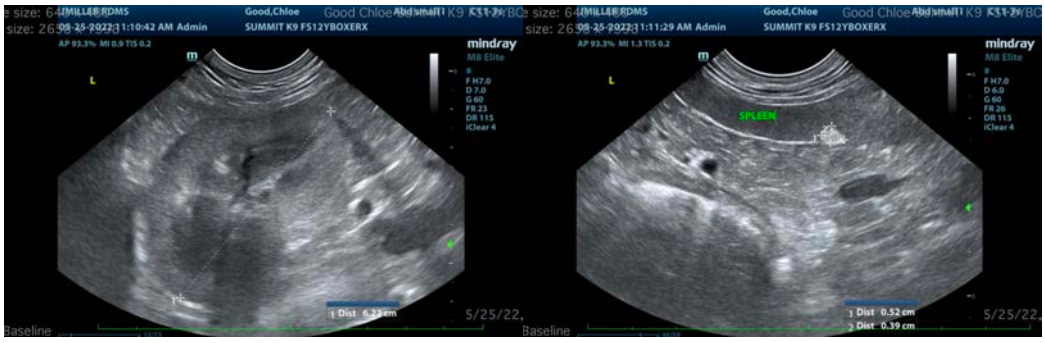
- Decreased corticomedullary distinction in both kidneys – The bilateral renal findings are consistent with age-related change.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There is a large mixed echogenic hepatic mass, which is likely associated with the liver enzyme elevations present and could be causing some decrease in appetite. Consider a fine needle aspirate of this lesion and a contrast CT scan to evaluate for the possibility of surgical removal and the presence of metastatic lesions.

The adrenal glands are borderline enlarged, and the left adrenal gland is somewhat irregular. This could represent normal anatomic variation/hyperplasia, but could also represent an early mass lesion. Recommend a blood pressure evaluation and consider further evaluation of the adrenals with the CT scan at the same time the hepatic mass is being evaluated.

There are too small splenic lesions observed. The more defined, smaller, hyperechoic nodule is most consistent with a benign myelolipoma. The 2nd less defined lesion towards the tail is less well defined, and if possible, a fine needle aspirate could be considered, or continued monitoring with ultrasound.

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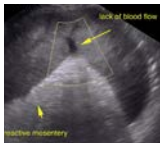
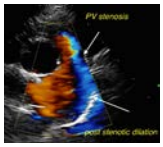
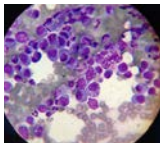
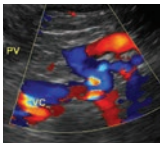

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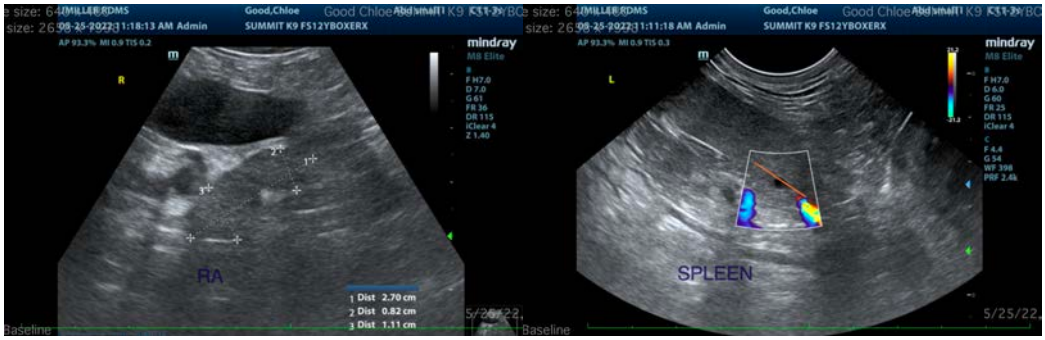


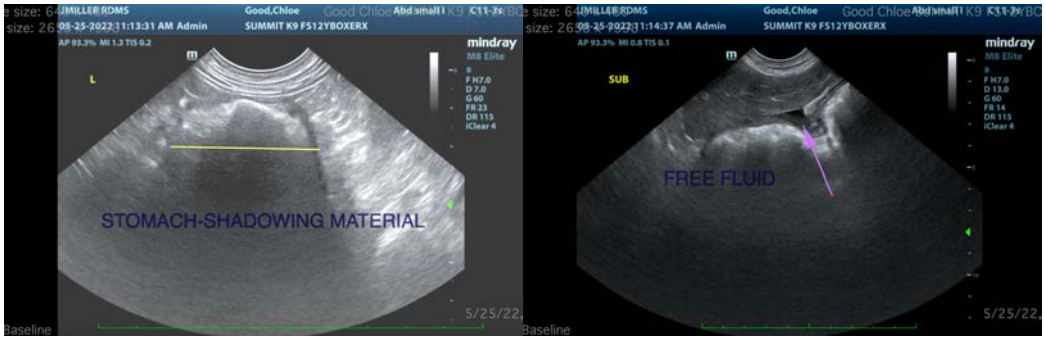



**The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.**

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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