



**PATIENT PRESENTING CLINICAL SIGNS**

Sandy LaDuke P/PD, low urine SG, non regenerative anemia  
 Abnormal PE/Chem/CBC/UA Results: WBC 7.1 diff wnl, HCT 31.2, PLT 271

**SPECIES ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

Canine

**Urinary System**

**BREED**

Poodle Mix

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.

**SEX**

FS

Normal size and margination was present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and moderate loss of corticomedullary symmetry and definition expected for the age of the patient. Mild bilateral pyelectasia was present. The left kidney measured 5.8 cm in length. The right kidney measured 6.4 cm in length.

**AGE**

2008

The area of the aortic trifurcation was free of pathology.

**Adrenal Glands**

**WEIGHT**

41

The left adrenal gland exhibited borderline enlargement. Mild parenchyma heterogeneity and mild capsule asymmetry was present without suspicion for overt neoplasia. The left adrenal gland measured 3.0 cm length and 0.85 cm width in the caudal pole. The right adrenal gland exhibited mild enlargement. The right adrenal gland measured 4.1 cm length and 1.8 cm width in the caudal pole.

**INTERPRETED BY**

R. McKenzie Daniel,  
 DVM, DABVP  
 (Canine and Feline)

**Spleen**

A moderately sized irregular non-homogeneous to nodular splenic mass appearing to involve the mid to caudal spleen was present measuring 6-7 cm in diameter. The parenchyma not involved with the mass exhibited mild parenchyma heterogeneity. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis.

**IMAGING PERFORMED BY**

Rebekah Jakum, CVT  
 ARDMS/RVT

**Liver**

The liver was subjectively normal in size, structure, and contour. The liver parenchyma was mildly nonuniform and hypoechoic to the spleen with a moderate coarse echotexture and subjective mild to benign parenchymal remodeling. Intermittent small thinly walled intraparenchymal cysts were present an example measuring 1.2 cm in diameter. The hepatic and portal vasculature were normal in appearance without signs of congestion.

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Dr.Banzhof

The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content with mild congealed echogenic debris in the caudal lumen and gallbladder neck. The cystic and common bile ducts were normal.

**Gastrointestinal**

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The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach contained mild ingesta exhibiting progressive distal acoustic shadowing with no signs of ileus, obstruction or foreign material.

**DATE**

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The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction or foreign material.



**PATIENT** Normal visible colon wall layers were present with apparent formed feces in lumen.

Sandy LaDuke **Pancreas**

**SPECIES** The parenchyma of the left limb, body and right limb of the pancreas presented isoechoic to the adjacent omental fat. A normal curvilinear capsule contour of the pancreas was present. The visible pancreatic duct was normal. No signs of active inflammation or neoplastic disease was evident.

Canine

**Free Abdomen**

**BREED** Mild volume peritoneal free fluid was present. Mild perisplenic reactive mesentery was present. No overt lymphadenopathy was present.

Poodle Mix

Rapid view of the heart revealed no evidence of pericardial masses or effusion in the visible window.

**SEX** **ULTRASONOGRAPHIC FINDINGS**

FS

- Irregular to nodular splenic mass
- Mild hepatic parenchymal remodeling with intermittent parenchymal cysts
- Bilateral chronic renal changes with mild pyelectasia
- Borderline to mild bilateral adrenomegaly-more prominent in the right adrenal gland
- Mild volume peritoneal free fluid and perisplenic hyperechoic mesentery

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

**WEIGHT**

41

The splenic mass is nonspecific with considerations including hyperplasia, hematopoiesis, granuloma, splenitis, or neoplasia (sarcoma, round cell neoplasia, other). Neoplastic criteria is favored. Probable secondary hemoabdomen given the anemia is likely.

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The bilateral adrenal glands were non-specific with considerations including benign hyperplasia, granuloma or emerging neoplasia such as pheochromocytoma, adenocarcinoma or other is possible. Screening BP to assess for evidence of hypertension which may allude to a right/left adrenal pheochromocytoma +/- full adrenal workup if clinical signs consistent with Cushing's syndrome are present is recommended. Potential for very early vascular invasion associated with the right adrenal gland cannot be definitively excluded yet is not obvious.

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Three view chest radiographs suggested if not done to assess for thoracic pathology. Assuming no pathology on radiographs and normal BP, exploratory laparotomy with splenectomy, gross inspection of the perisplenic omentum, liver and right adrenal gland +/- adrenalectomy if clinically indicated or if possible, could be considered. Abdominal CT is likely ideal for further assessment and staging. A very guarded to potential unfavorable long term prognosis is indicated.

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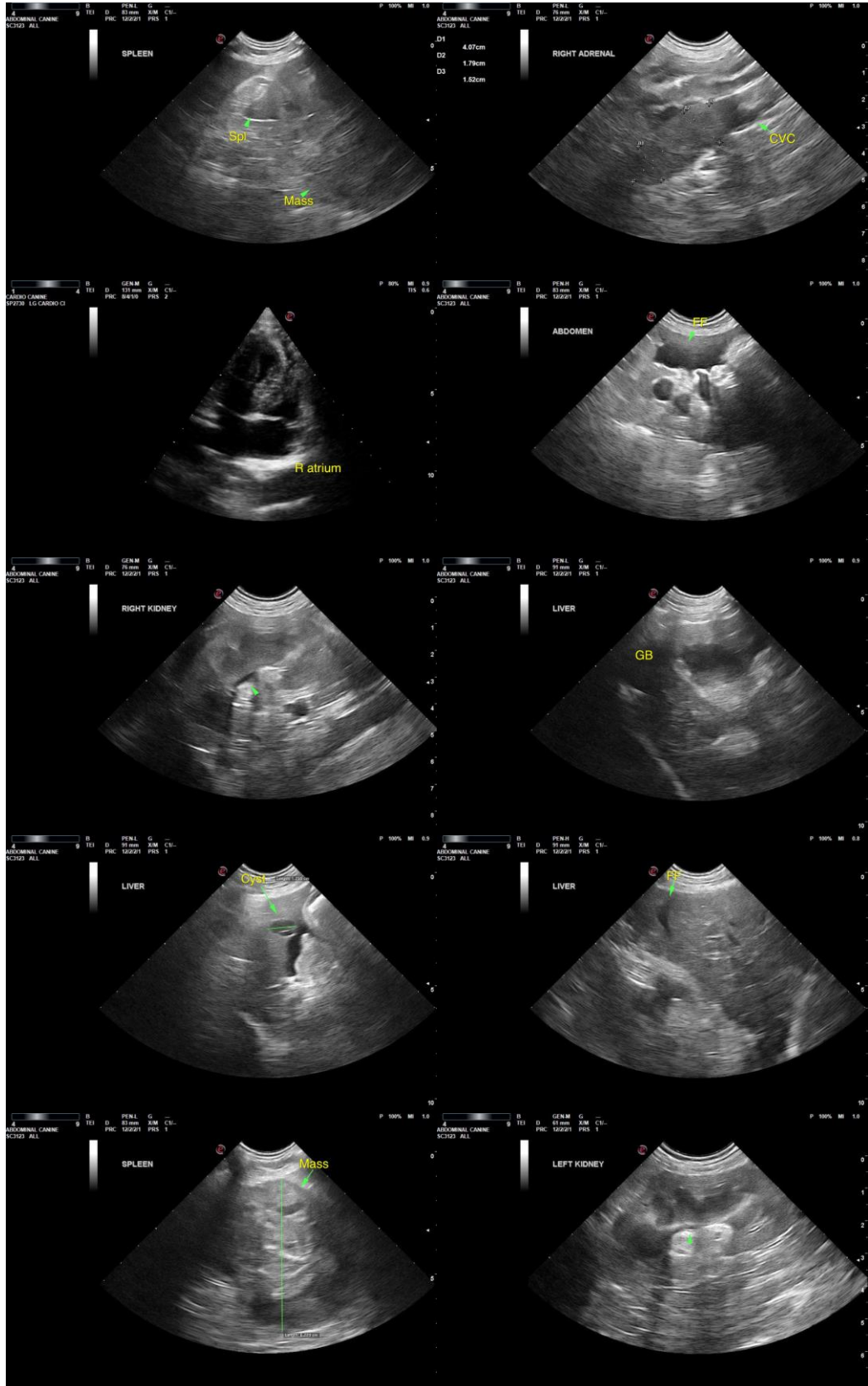
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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