

**PATIENT**

Charlie Cottrell

PRESENTING CLINICAL SIGNS

Weakness and heavy breathing
 Abnormal PE/Chem/CBC/UA Results: X-rays abnormal Possible fluid in lungs

SPECIES

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

The urinary bladder is moderately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

BREED

Shih Tzu

Prostate is normal in size, echotexture and echogenicity for a neutered male.

SEX

Neutered Male

Kidneys are overall normal in size and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased cortical echogenicity and mild loss of corticomedullary distinction, expected in this age patient. No infarcts noted. The right kidney has an anechoic but septated lesion in the caudal pole, measuring 0.65 cm x 0.88 cm, consistent with a cortical cyst, potentially a complicated cortical cyst. The right kidney measures 3.66 cm with mild pyelectasia. The left kidney measures 3.14 cm with pyelectasia of 0.29 cm noted in the transverse view. Non-obstructive areas of mineralization/nephroliths are noted in the left kidney.

AGE

15 Years

WEIGHT

9.5 Pounds

Adrenal Glands

The right adrenal gland is normal in size (0.46 cm at the cranial pole and 0.34 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

INTERPRETED BYBeth Johnson, DVM
DACVIM

The left adrenal gland is normal in size (0.56 cm at the cranial pole and 0.65 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

IMAGING PERFORMED BY

Amy Mayhew, LVT

Spleen

The spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). An almost 1.0 cm x 2.0 cm hypo- to anechoic nodule is noted in the mid body, non-capsule disrupting. Splenic vasculature appears normal.

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Liver

Liver is subjectively enlarged with mildly irregular margins. Parenchyma is heterogenous characterized by multiple poorly defined hypoechoic nodules within otherwise hyperechoic liver parenchyma. Visible vasculature and biliary tree appear normal without distension or congestion.

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The gallbladder is unable to be visualized in these images. There is no known history of gallbladder removal, but full patient history is unknown by current owners.

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Gastrointestinal

The stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) and layering, except for a focal hypoechoic/heterogeneous loss of mural detail approximately 2.0 cm long and 1.0 cm thick in the wall of the gastric body ventrally. The stomach is mildly distended with fluid, gas, and echogenic ingesta/chyme.

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10/28/22

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svsimagingmi@gmail.com



PATIENT

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The visible small intestines are normal in wall thickness and layering (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

SPECIES

Canine

The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

Pancreas

BREED

Shih Tzu

The pancreatic parenchyma is appropriately isoechoic to surrounding tissue. Visible capsule is smooth and normal in contour. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

SEX

Neutered Male

Free Abdomen

There is no evidence of free peritoneal effusion noted in these images.

There is no apparent lymphadenopathy noted in these images.

AGE

15 Years

PRIMARY FINDINGS

- **Focal gastric mass/loss of mural detail** – most concerning for infiltrative neoplasia such as carcinoma or leiomyosarcoma versus slightly less likely (given lack of concurrent pathology) round cell neoplasia such as lymphoma, etc. Benign inflammatory disease is possible but considered less likely.
- **Heterogenous Liver** – These changes are most consistent with benign processes such as nodular hyperplasia, steroid (vacuolar) hepatopathy, extramedullary hematopoiesis or possibly chronic inflammatory disease and less commonly infiltrative round cell or metastatic neoplasia.
- **Hypo to anechoic splenic nodule** – likely represents a benign lesion such as a cyst, hematoma, nodular hyperplasia, extramedullary hematopoiesis, etc., however while considered less likely, infiltrative neoplasia can mimic benign lesions, and cannot be ruled out.

WEIGHT

9.5 Pounds

SECONDARY FINDINGS

- **Age related kidney changes with bilateral pyelectasia** – Differentials for pyelectasia include pyelonephritis, diuresis, congenital malformation or ureteral or lower urinary tract obstruction.
- Non-obstructive nephrolithiasis in the left kidney and a cyst/complicated cyst in the caudal pole of the right kidney

INTERPRETED BY

Beth Johnson, DVM
DACVIM

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given this patient's reported history, managing the respiratory distress is the first recommendation, whether its metastatic disease or cardiac disease or potentially aspiration pneumonia secondary to vomiting (if that clinically matches the history is unknown). However, upon patient stabilization, further evaluation of the gastric mass is recommended and can be evaluated either with fine needle aspirate if patient's coagulation status is appropriate, an endoscopic/gastroscopic biopsy, or even an exploratory laparotomy with planned mass removal, as the appearance of the mass is that of a likely resectable one based on these images.

IMAGING PERFORMED BY

Amy Mayhew, LVT

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While trending more benign in appearance, both the liver and spleen could be aspirated as well to rule out unlikely but possible metastatic disease prior to pursuing an invasive surgery.

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If not recently evaluated, a urinalysis and, if indicated based on urinalysis results, urine culture are recommended. If protein is present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ratio is recommended.

SPECIES

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Shih Tzu

SEX

Neutered Male

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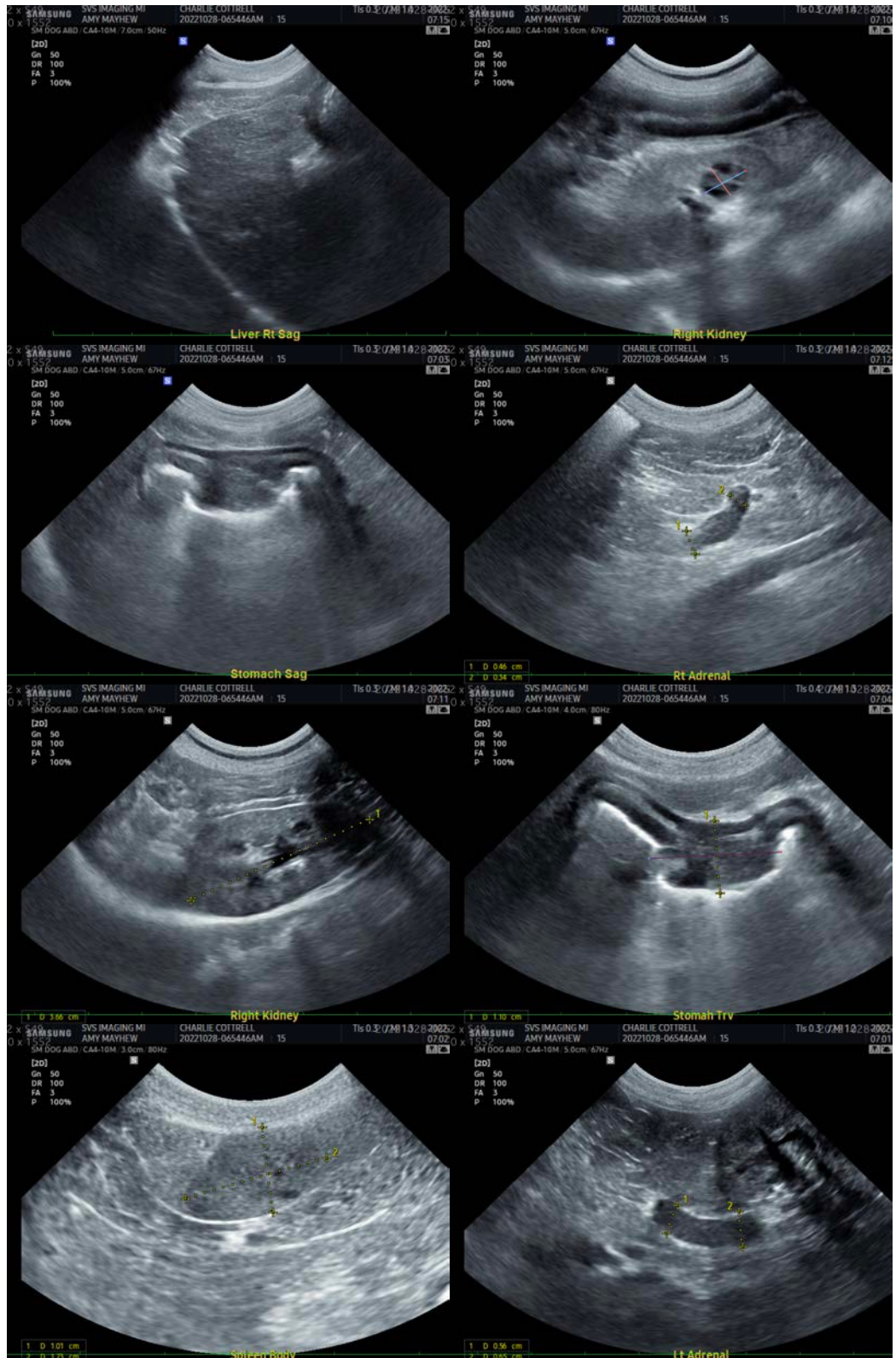
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SPECIES

Canine

BREED

Shih Tzu

SEX

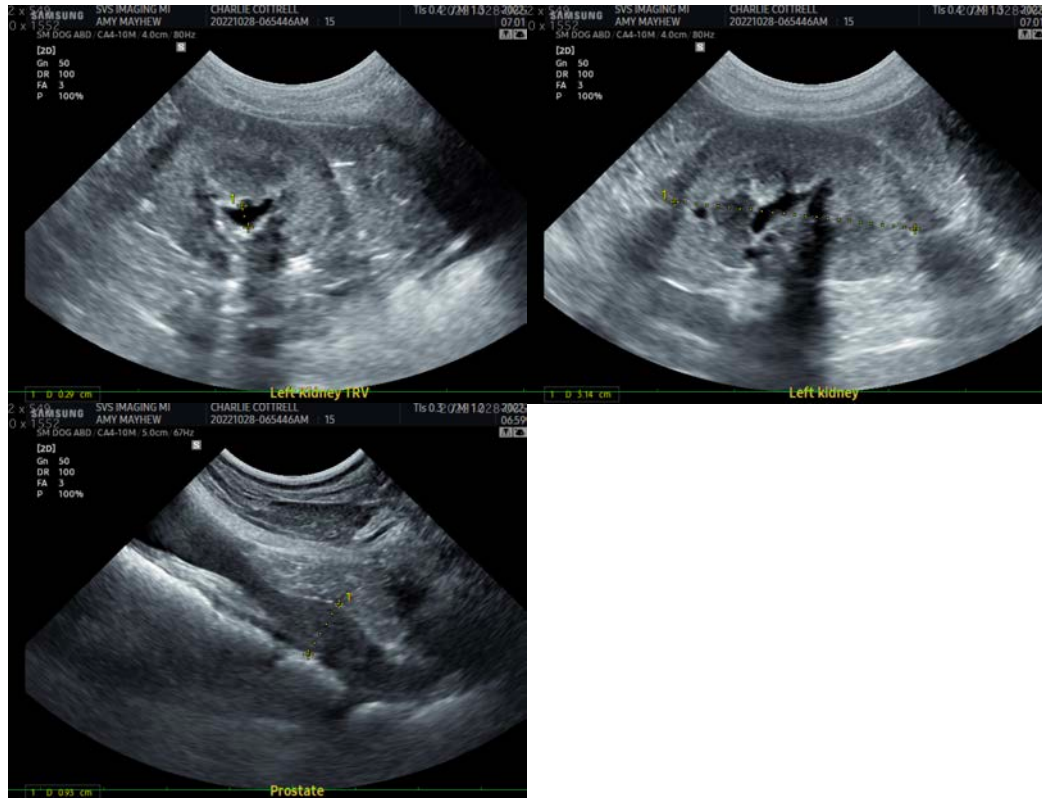
Neutered Male

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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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