

**PATIENT PRESENTING CLINICAL SIGNS**

Lucky Russell Suspected hepatocutaneous syndrome.

**SPECIES**

Canine

**BREED**

Terrier mix

**SEX**

Male, neutered

**AGE**

19/2010

**WEIGHT**

28.6 lbs.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

*Urinary System*

The urinary bladder wall is normal in thickness and the mucosal surface is smooth. The bladder lumen is moderately distended with mostly anechoic urine. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 2 cm, are normal.

The prostate is not definitively visualized due to its pelvic location.

The left kidney is normal size (5.56 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney is normal size (6.20 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

*Adrenal Glands*

The left adrenal gland is mildly enlarged (0.85 cm at cranial pole) (1.01 cm at caudal pole) (2.39 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.

The right adrenal gland is mildly enlarged (1.62 cm at cranial pole) (0.82 cm at caudal pole); 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.

*Spleen*

The spleen is normal in size (1.37 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 vasculature is normal.

*Liver*

The liver is subjectively prominent in size. The parenchyma is hypoechoic relative to the spleen and subtly mottled in appearance. In the right lateral lobe, a 3.28 x 2.30 cm irregular, hyperechoic to slightly heterogeneous mass is visualized. The lesion causes mild capsular expansion. In the remainder of the liver, the margins are curvilinear. Several varying sized hyperechoic nodules are observed throughout the organ. Vascular and biliary tracts are of normal volume with no evidence of congestion. The portal vein: caudal vena cava ratio is approximately 1:1. The gall bladder lumen is moderately distended. The wall is slightly thickened (up to 0.21 cm) and hyperechoic. A small amount of mostly gravity-dependent echogenic debris is observed within the lumen. The cystic and common bile ducts are normal/not seen.

**INTERPRETED BY**

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(Small Animal Internal  
Medicine)

**IMAGING PERFORMED BY**

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**HOSPITAL NAME**

SE Veterinary  
Dermatology and Ear

**REFERRING VET**

Dr. Randall Thomas

**INVOICE**

14065

**DATE**

10/5/22



**PATIENT**

***Gastrointestinal***

Lucky Russell

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. The lumen of the descending colon contains liquid appearing fecal material. No obstructive disease is noted.

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***Pancreas***

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.

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***Free Abdomen***

There is no obvious evidence of free fluid. A 1.42 cm slightly rounded hypoechoic sublumbar lymph node is visualized.

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**ULTRASONOGRAPHIC FINDINGS**

**Primary Findings:**

- Right hepatic mass. Differentials include neoplasia (i.e., adenoma, adenocarcinoma, excessive nodular hyperplasia). The other hepatic nodules trend toward the benign (i.e., regenerative nodules) with a lower possibility of emerging neoplasia. The diffuse hepatic parenchymal changes are non-specific and could be secondary to a benign age-related process (i.e., regenerative nodular hyperplasia and/or age-related remodeling). However, a microscopic hepatopathy (i.e., hepatocutaneous syndrome, inflammatory disease, other) cannot be excluded.

**Secondary Findings:**

- The gallbladder wall thickening could be consistent with cholecystitis and/or benign age-related hyperplasia. Correlation with the patient's liver values is recommended.
- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- The bilateral adrenomegaly is most consistent with hyperplastic change.
- Mild bilateral, chronic age-related renal changes.

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

- Baseline labwork including a CBC chemistry panel, urinalysis and T4 is recommended, if not already performed.
- Pre- and post-prandial serum bile acids should also be considered to assess hepatic function.



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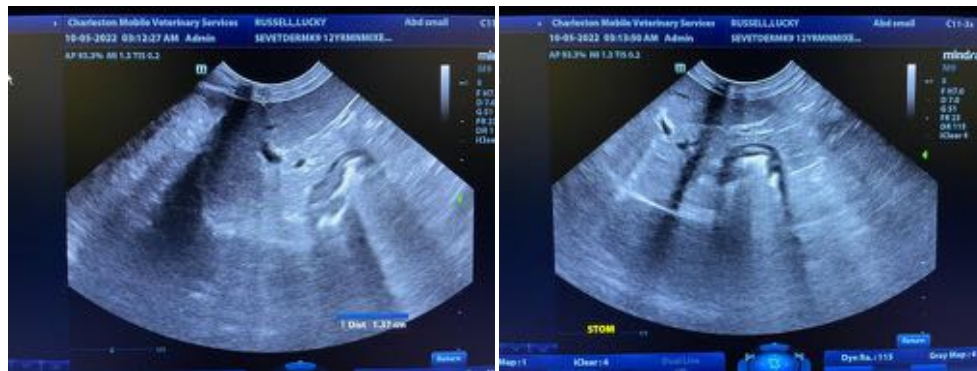
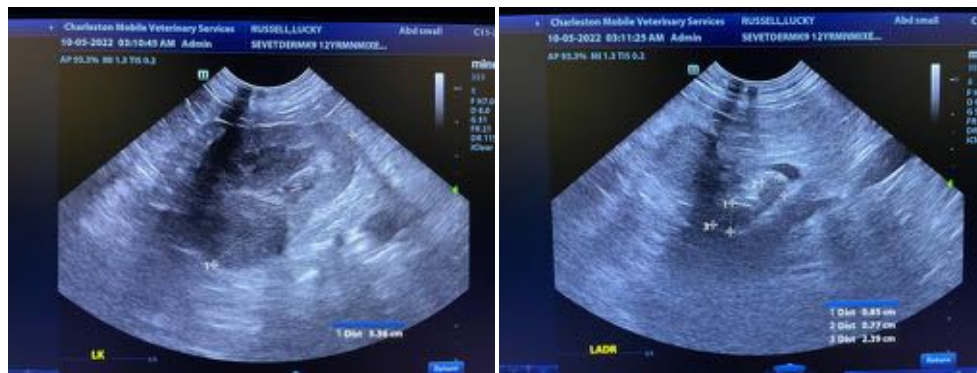
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- Given the hepatic mass, thoracic radiographs are recommended to assess for pulmonary metastases. Consider a fine needle aspirate of the hepatic nodule, if clotting status is appropriate. If results are inconclusive, surgical removal with submission for histopathology can be considered.
- Consider testing for hyperadrenocorticism with a low-dose dexamethasone suppression test or ACTH stimulation test if clinical signs (i.e., PU/PD) develop. The patient should be off of corticosteroids for several weeks prior to Cushing's testing.





**PATIENT**

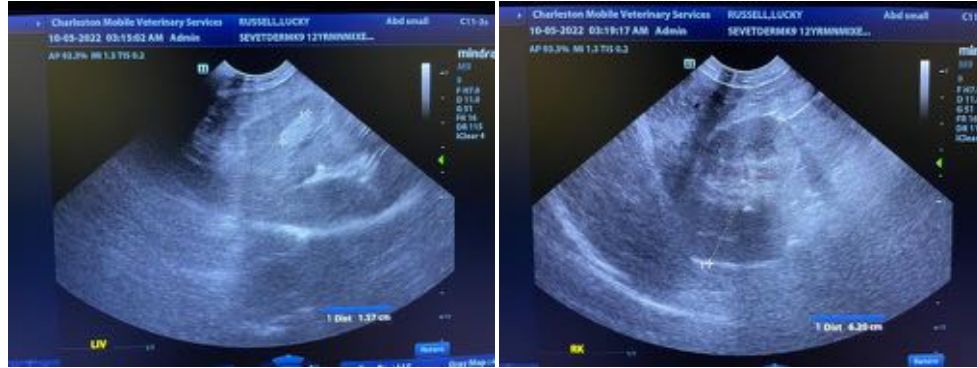
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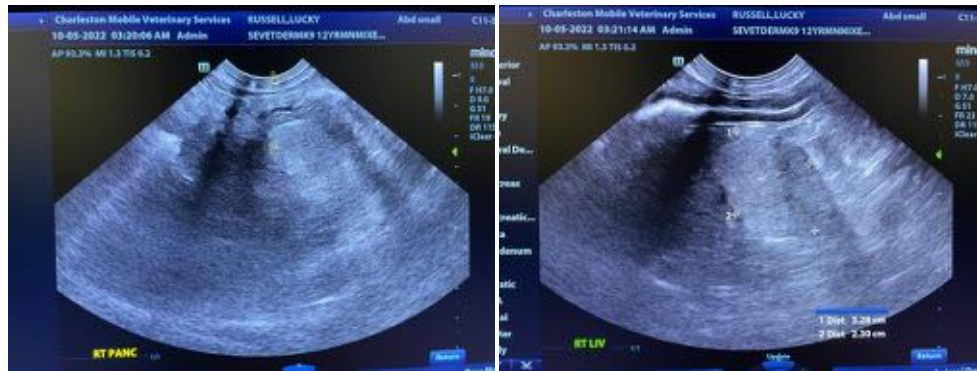
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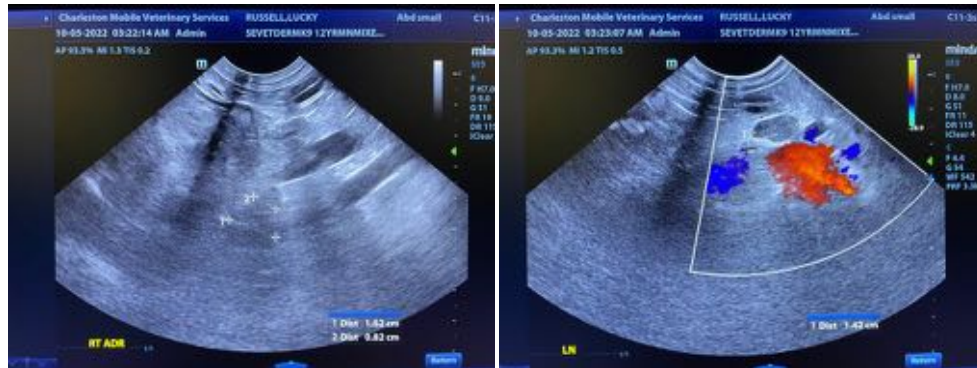


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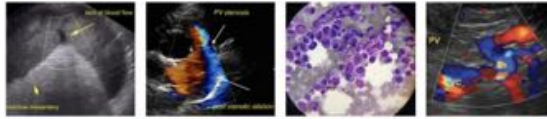
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible



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in the image/video clips provided.

Lucky Russell

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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