



PATIENT PRESENTING CLINICAL SIGNS

Sadie Fricks History: elevated liver values and potbellied appearance LABS attached

SPECIES ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Canine

Urinary System

BREED

Shih Tzu

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.

SEX

Spayed Female

The left kidney has a normal shape and size (3.5 cm). Overall echogenicity is normal with adequate 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.

AGE

9 years

The right kidney has a normal shape and size (3.36 cm). Overall echogenicity is normal with adequate 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.

WEIGHT

10 Pounds

Adrenal Glands

INTERPRETED BY

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

The left adrenal gland is normal in size measuring 0.4cm at the caudal pole It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

IMAGING PERFORMED BY

Loetitia Saint-Jacques, RVT

The right adrenal gland is large in size measuring 1.04 cm at the cranial pole, 0.3 cm at the caudal pole and is 1.8 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 irregular in appearance with an enlarged, hyperechoic cranial pole and small, hypoechoic caudal pole. There is no evidence of vascular invasion, but this cannot be 100% ruled out.

HOSPITAL NAME

Sierra VS Blue Pearl of NV

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. No focal parenchymal abnormalities are visualized.

REFERRING VET

Dr. Rinehimer

Liver

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The liver is subjectively large in size, and 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. No focal nodules or cystic lesions are observed. The gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a

DATE

8/20/21



PATIENT smooth mucosal surface. Luminal contents are primarily anechoic. The cystic and common bile ducts are normal/not visible.

Sadie Fricks

SPECIES *Gastrointestinal*

Canine The stomach contains minimal luminal contents. 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 layers is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

BREED

Shih Tzu 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.

SEX

Spayed Female

AGE

9 years

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.

WEIGHT

10 Pounds

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.

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Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

IMAGING PERFORMED BY

Loetitia Saint-Jacques, RVT

ULTRASONOGRAPHIC FINDINGS

HOSPITAL NAME

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PRIMARY FINDINGS:

- Large heterogenous liver. The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy.
- Right adrenal gland nodule. Right adrenomegaly could be consistent with neoplasia (e.g., adenoma, carcinoma, pheochromocytoma), hyperplasia, inflammation, other.

REFERRING VET

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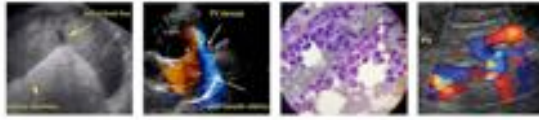
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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

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There is a nodule in the right adrenal gland. This is suspicious for a possible cortisol secreting tumor. It is not huge, but it is clearly enlarged and hyperechoic. This patient is currently on Prednisone (drops and



PATIENT

Sadie Fricks

systemic I believe) so adrenal function testing may be difficult. In general these are my recommendations for a patient with an adrenal gland nodule and signs of Cushing's disease.

SPECIES

Canine

There is nodule present on the right adrenal gland. This nodule is relatively small and is not deforming the adrenal gland significantly and doesn't appear to have any evidence of vascular invasion.

BREED

Shih Tzu

These nodules can be benign or malignant and can secrete hormones or be non-active. Options moving forward include:

SEX

Spayed Female

- If signs of Cushing's are present, consider adrenal function testing. I prefer an ACTH stimulation test combined with an adrenal panel to the University of Tennessee's endocrine lab to look for atypical adrenal hormones as well as cortisol. (other testing can suffice). Any adrenal function testing would need to be done 2-4 weeks after discontinuation of all steroid therapy, including eye drops.
- If adrenal dependent Cushing's is suspected and supported by adrenal function testing consider medical therapy with Lysodren or Trilostane or consider surgical removal (recommend referral to a board certified veterinary surgeon and possible pre op CT)
- Recommend blood pressure evaluation-if hypertensive consider testing catecholamine levels for a possible pheochromocytoma
- If no symptoms of Cushing's are present, consider either referral for surgery or continued monitoring with ultrasound (in 3-4 months).
- Many of these nodules can be benign and incidental in nature, unfortunately that is difficult to determine with a single ultrasound.

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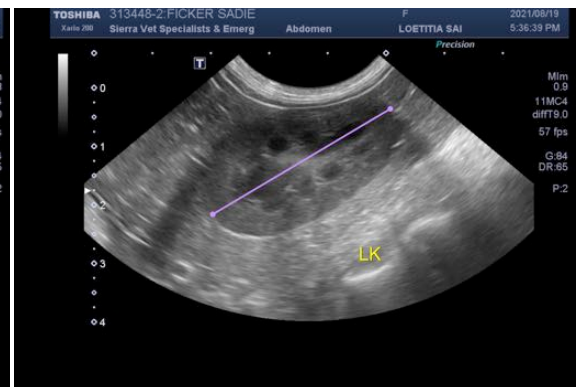
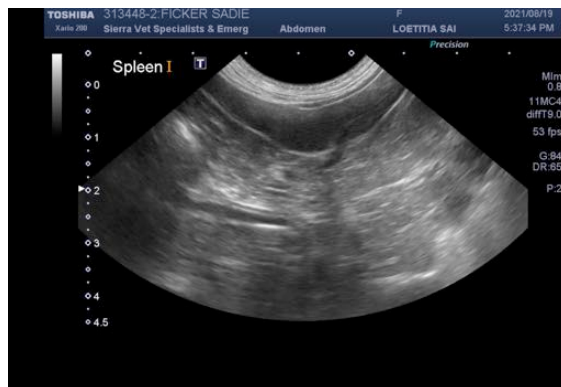
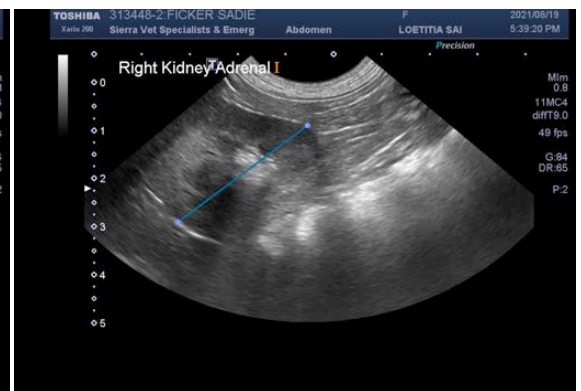
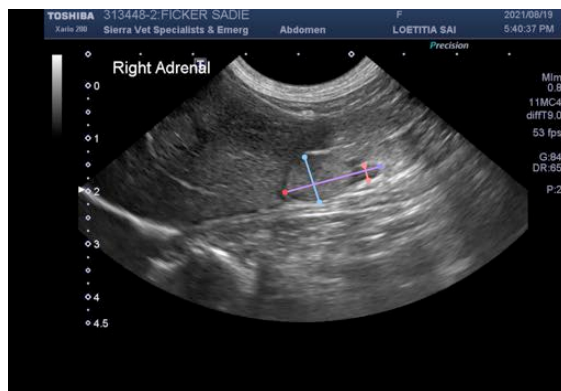
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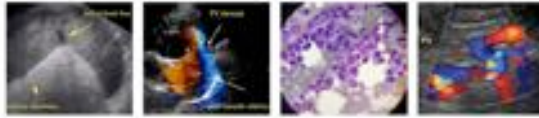
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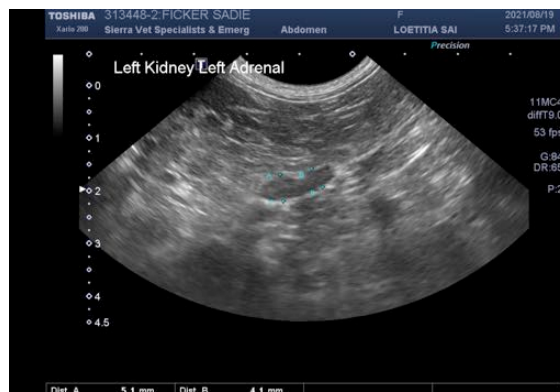
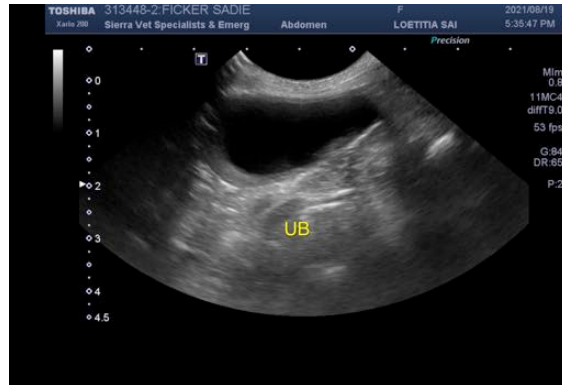
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Kathleen Sennello DVM,MS, Diplomate ACVIM (Small animal Internal Medicine)

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