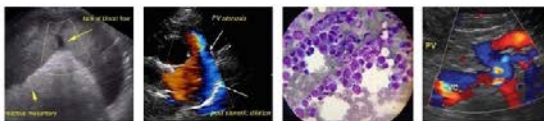
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com



THE FOCAL ZONE
IMAGING PERFORMED BY
289-808-2608 info@thefocalzone.com

PATIENT

Faith Davey

SPECIES

Canine

BREED

Lab X

SEX

Spayed Female

AGE

14 Years

WEIGHT

16 kg

INTERPRETED BY

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

IMAGING PERFORMED BY

Crystal Hill

HOSPITAL NAME

BPH Stoney Creek

REFERRING VET

Dr. Baskin

INVOICE

39546

DATE

7/14/22

PRESENTING CLINICAL SIGNS

Diarrhea for 1 week, vomiting. BM starts solid then turns to diarrhea near the end. Started Metronidazole and forti flora, now P is having diarrhea with blood and mucous all over the house. No meds.

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 (5.06 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 (5.75 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 normal in size measuring 0.79 cm at the cranial pole, 0.90 cm at the caudal pole, and 2.48 cm in length. It is observed in its normal position cranial to the left renal artery. It is somewhat abnormal in appearance in that there is a hyperechoic nodule on the caudal pole measuring approximately 0.57 cm x 1.1 cm. Additionally, there is some irregularity towards the caudal aspect of the pole, which could represent early vascular invasion.

The right adrenal gland is normal in size measuring 0.84 cm at the caudal pole. 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.

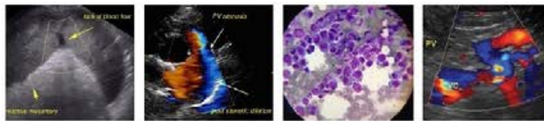
Spleen

The spleen is subjectively normal in size and the echotexture is homogenous. The splenic capsule is smooth with no visible irregularities. Rare discrete focal hyperechoic, perivascular parenchymal abnormalities are present. The appearance of these lesions is most consistent with benign splenic myelolipomas. The blood flow through the hilus and splenic parenchyma appears normal.

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



PATIENT

Faith Davey

SPECIES

Canine

BREED

Lab X

SEX

Spayed Female

AGE

14 Years

WEIGHT

16 kg

INTERPRETED BY

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

IMAGING PERFORMED BY

Crystal Hill

HOSPITAL NAME

BPH Stoney Creek

REFERRING VET

Dr. Baskin

INVOICE

39546

DATE

7/14/22

Gastrointestinal

The stomach contains moderate fluid. 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.

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. Duodenum wall measured 0.47 cm. Jejunum wall measured 0.36 cm. 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

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.

Other

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

PRIMARY FINDINGS

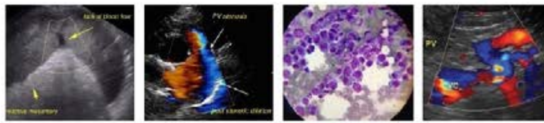
- Hyperechoic nodule in the caudal pole of the left adrenal gland with some irregularity/possible vascular invasion – Left adrenomegaly could be consistent with neoplasia (e.g., adenoma, carcinoma, pheochromocytoma), hyperplasia, inflammation, other.
- Large, heterogeneous liver – The diffuse hepatic 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.
- Moderate fluid distention of the gastric lumen – Correlate with eating and drinking history and abdominal radiographs. If the patient was adequately fasted, then this could represent delayed gastric emptying or less likely gastric outflow tract obstruction (none observed).

SECONDARY FINDINGS

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

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

A lesion responsible for the acute gastrointestinal signs described is not clearly visualized. There is a hyperechoic nodule in the caudal pole of the left adrenal gland. I suspect this is unrelated to the current symptoms(?). Additionally, the liver is large and heterogeneous. Correlate these findings with bloodwork. If liver enzymes are elevated, you could consider a liver function test and a fine needle



PATIENT

Faith Davey

SPECIES

Canine

BREED

Lab X

SEX

Spayed Female

AGE

14 Years

WEIGHT

16 kg

INTERPRETED BY

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

IMAGING PERFORMED BY

Crystal Hill

HOSPITAL NAME

BPH Stoney Creek

REFERRING VET

Dr. Baskin

INVOICE

39546

DATE

7/14/22

aspirate of the liver. These are my recommendations for further evaluation of a nodule in the adrenal gland.

- If signs of cushings 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). Adrenal function testing is only indicated once this patient is feeling better and the diarrhea and GI signs have resolved.

- If adrenal dependent cushings 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

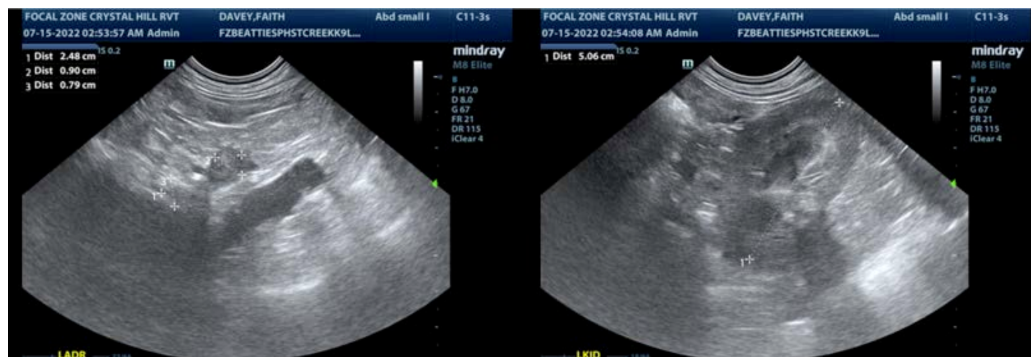
- If no symptoms of cushings are present, consider either referral for surgery or continued monitoring with ultrasound (in 3-4 months).

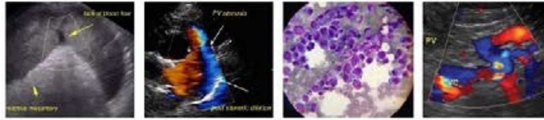
- Many of these nodules can be benign and incidental in nature, unfortunately that is difficult to determine with a single ultrasound.

There is an irregularity to the caudal aspect of this adrenal gland, which could represent early vascular invasion. This would be a situation where I would consider a CT scan sooner, or follow more closely with ultrasound (recheck in 6-8 weeks).

If concurrent liver disease is thought unlikely based on bloodwork results, then consider primary GI causes of vomiting and diarrhea, including food allergy/dietary intolerance, GI parasitism, IBD, dietary indiscretion, dysbiosis, pancreatitis, infectious causes of diarrhea, and less likely IBD or intestinal neoplasia (unlikely to cause acute symptoms). Recommend continued aggressive general medical therapy for acute gastroenteritis/colitis. If symptoms persist, you may need to pursue testing for infectious causes of diarrhea, fecal culture (for clostridium, campylobacter, etc.), and even GI biopsies.

Consider three view thoracic radiographs to rule out concurrent thoracic disease/involvement.





PATIENT

Faith Davey

SPECIES

Canine

BREED

Lab X

SEX

Spayed Female

AGE

14 Years

WEIGHT

16 kg

INTERPRETED BY

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

IMAGING PERFORMED BY

Crystal Hill

HOSPITAL NAME

BPH Stoney Creek

REFERRING VET

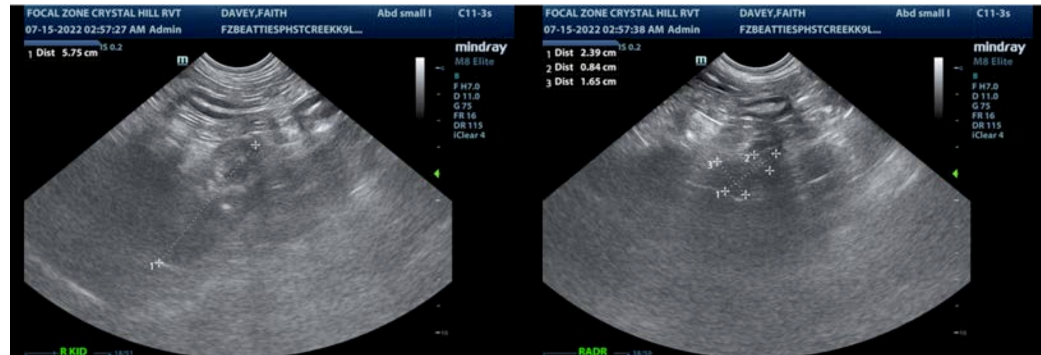
Dr. Baskin

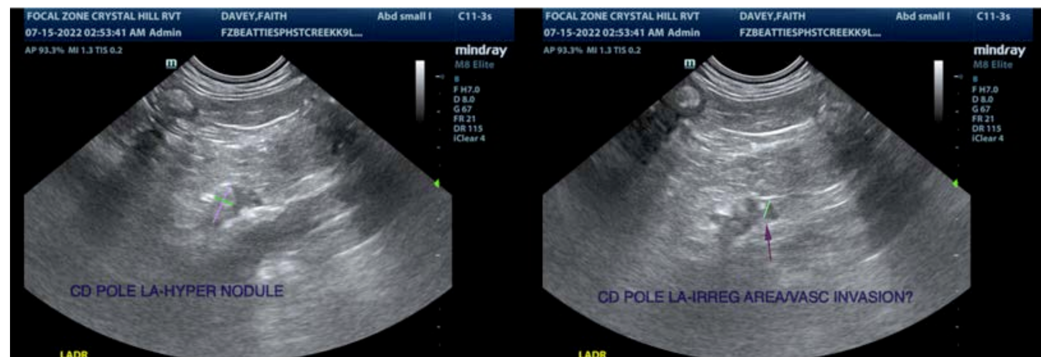
INVOICE

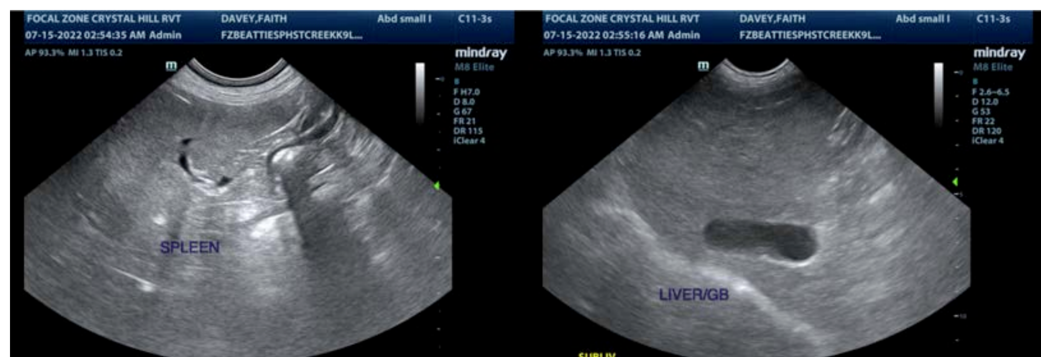
39546

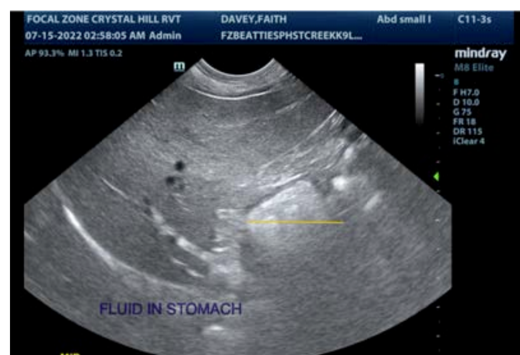
DATE

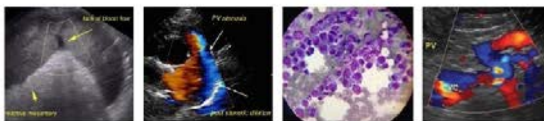
7/14/22











PATIENT

Faith Davey

SPECIES

Canine

BREED

Lab X

SEX

Spayed Female

AGE

14 Years

WEIGHT

16 kg

INTERPRETED BY

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

IMAGING PERFORMED BY

Crystal Hill

HOSPITAL NAME

BPH Stoney Creek

REFERRING VET

Dr. Baskin

INVOICE

39546

DATE

7/14/22

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.

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

kathleen.sennello@sonopath.com