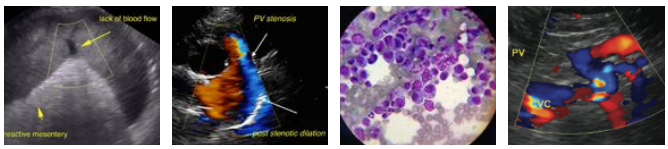
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT
Lucy Salazar

SPECIES
Canine

BREED
Dachshund

SEX
Spayed female

AGE
14 years

WEIGHT
9.44 lbs

INTERPRETED BY
Dr Brittany Sinclair, BVSc(hons), DACVECC

IMAGING PERFORMED BY
Ashley Whitesell

HOSPITAL NAME
Dickson AC

REFERRING VET
Dr. Hovis

INVOICE
42621

DATE
2/7/23

PRESENTING CLINICAL SIGNS

History: history of elevated liver values, autoimmune polyarthritis- well managed on 2.5 mg prednisone twice weekly
Abnormal PE/Chem/CBC/UA Results: USG 1012, ALT 310, Alk phos 959, not eating and vomiting. radiographs stomach looks subjectively thickened

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

Urinary bladder lumen volume is small and walls are diffusely thickened most consistent with pseudohypertrophy

The kidneys have a smooth capsule and with hazing of corticomedullary definition to the point of inability to determine cortical/medullary ratio. No evidence of pelvic dilation was present. The left kidney measured 3.9 cm and the right kidney measured 3.4 cm.

Adrenal Glands

Both adrenal glands were visualized and recognized. Both were subjectively prominent with significantly enlarged left caudal and right caudal poles, with no specific masses or nodules seen. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The left kidney measured 1.97 cm in length and 0.84 cm at the caudal pole and 0.48 cm at the cranial pole. The right adrenal gland measured 1.63 cm in length and 0.76 cm at the caudal pole and 0.65 cm at the cranial pole.

Spleen

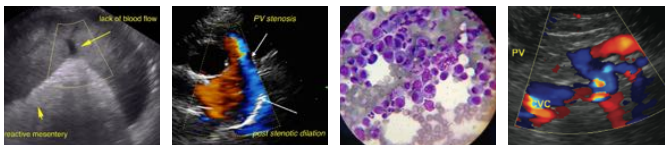
The spleen was normal with a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma and smooth capsule, with normal splenic vasculature with no signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarct changes were noted.

Liver

The liver is subjectively normal in size with normal contours and structure. There is appropriate echogenicity and echotexture. No overt structural evidence of inflammatory, infiltrative or regenerative pathology is evident. Vascular and biliary tracts are of normal volume with no evidence of congestion. No pathological hepatic lymphadenopathy observed. The gall bladder is moderately distended with anechoic fluid, with hyperechoic non-shadowing gravity dependent debris present. Gall bladder wall is of normal thickness but is hyperechoic. There is no surrounding free fluid or signs of surrounding inflammation.

Gastrointestinal

The stomach lumen is largely empty with linear shadowing objects seen. Not overtly obstructive. It measures at a normal thickness of with some variability due to the presence of rugal folds. The



SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT
Lucy Salazar

SPECIES
Canine

BREED
Dachshund

SEX
Spayed female

AGE
14 years

WEIGHT
9.44 lbs

INTERPRETED BY
Dr Brittany Sinclair, BVSc(hons), DACVECC

IMAGING PERFORMED BY
Ashley Whitesell

HOSPITAL NAME
Dickson AC

REFERRING VET
Dr. Hovis

INVOICE
42621

DATE
2/7/23

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. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

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 base and limbs of the pancreas were observed to be largely isoechoic to surrounding omental fat. Pancreatic duct and capsular contour and parenchyma were normal. No overt evidence of active inflammatory or neoplastic disease was noted.

Lymph Nodes

No clinically significant lymphadenopathy or abnormalities noted.

Free Abdomen

No masses or free fluid were noted.

ULTRASONOGRAPHIC FINDINGS

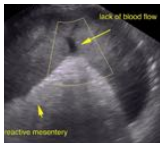
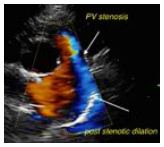
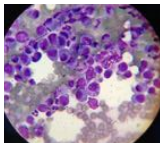
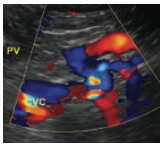
Primary Findings

1. Cholangitis
2. Bilateral adrenomegaly
3. Gastric foreign material
4. Thickened urinary bladder wall - suspect pseudohypertrophy
5. Degenerative renal changes

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Gall bladder debris with ultrasonographic evidence of cholangitis, together with elevated liver enzymes. is most consistent with active cholangiohepatitis. This is a likely explanation for current clinical signs and recent ALKP increase. Given chronic steroid use, current ALKP elevation should be correlated with previous routine bloodwork when current clinical signs were not present. Cholangiohepatitis can be a sterile or infectious process and cholecystocentesis for culture and cytology should be considered. Liver aspirate could be considered to screen for microscopic liver disease given elevated ALT. Empiric treatment for cholangiohepatitis includes fluid and GI support as clinically indicated, including anti-nausea, appetite stimulant and analgesic medications, empiric antibiotics (clavamox or enrofloxacin are reasonable), and liver supportive medications such as Denamarin and ursodiol.

Adrenomegaly is bilateral and is unusual in the face of chronic steroid use. This may represent stressful illness or hormonal stimulation as is seen with pituitary dependent hyperadrenocorticism, or early

SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Lucy Salazar

SPECIES

Canine

BREED

Dachshund

SEX

Spayed female

AGE

14 years

WEIGHT

9.44 lbs

INTERPRETED BY

Dr Brittany Sinclair, BVSc(hons), DACVECC

IMAGING PERFORMED BY

Ashley Whitesell

HOSPITAL NAME

Dickson AC

REFERRING VET

Dr. Hovis

INVOICE

42621

DATE

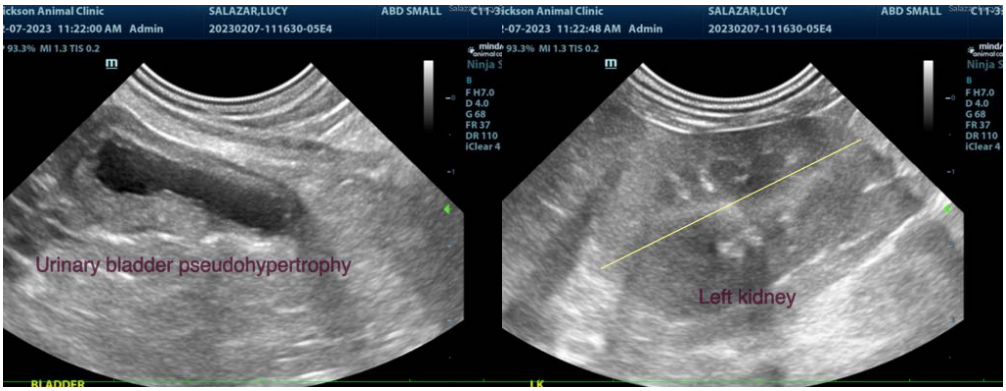
2/7/23

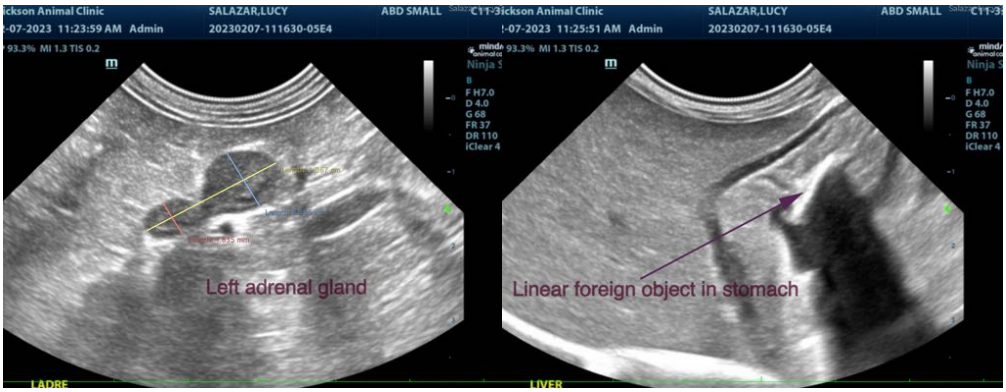
development of adrenal gland tumors. Hyperadrenocorticism, even if present, is not the likely cause of inappetence and vomiting, though could explain the elevated ALKP, which could also be caused by exogenous steroid use. If clinical signs corresponding to hyperadrenocorticism are present, after withdrawal from exogenous steroids, testing for hyperadrenocorticism could be considered. As steroids are being used to control underlying auto-immune disease, if clinical signs of hyperadrenocorticism are not present, withdrawal from steroids and further adrenal function testing may not be clinically warranted or recommended. Continued monitoring of adrenal gland size and structure with serial ultrasound to monitor for development of adrenal gland tumor is recommended.

Gastric foreign material is small and non-obstructive. The exact nature of the material cannot be definitively determined by ultrasound, but it has the appearance of a blade of grass or similar size/shape object. Abdominal radiographs may be of use to further define. If clinically warranted endoscopy could be considered to further investigate, with plan to remove foreign material and obtain gastric biopsy if warranted.

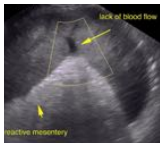
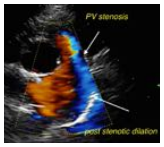
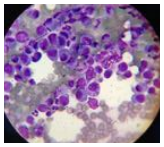
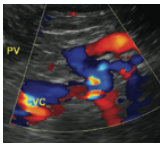
Urinary bladder wall thickening is likely pseudohypertrophy secondary to low volume of urine and lack of luminal distension, however, true mural thickening cannot be definitively ruled out. Re-examination when urinary bladder lumen volume is increased with time and/or fluid therapy should be considered if clinical suspicion for urinary bladder disease is high.

Renal changes are likely age related degeneration. Correlate clinical significance with blood work/urinalysis findings and clinical signs.





SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Lucy Salazar

SPECIES

Canine

BREED

Dachshund

SEX

Spayed female

AGE

14 years

WEIGHT

9.44 lbs

INTERPRETED BY

Dr Brittany Sinclair, BVSc(hons), DACVECC

IMAGING PERFORMED BY

Ashley Whitesell

HOSPITAL NAME

Dickson AC

REFERRING VET

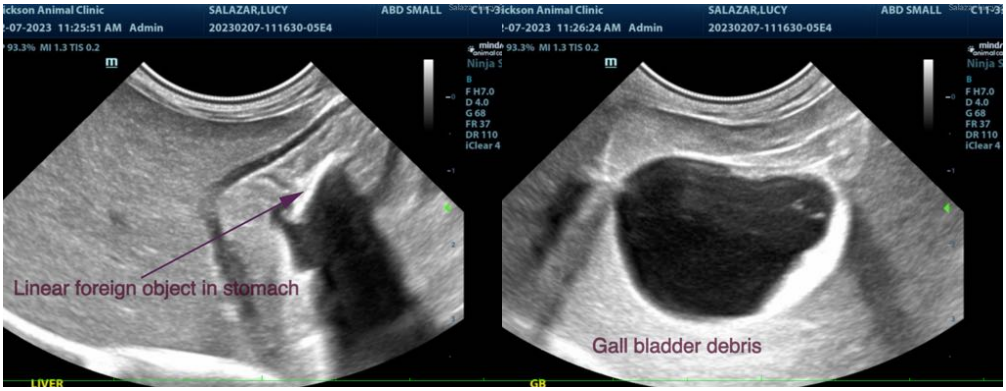
Dr. Hovis

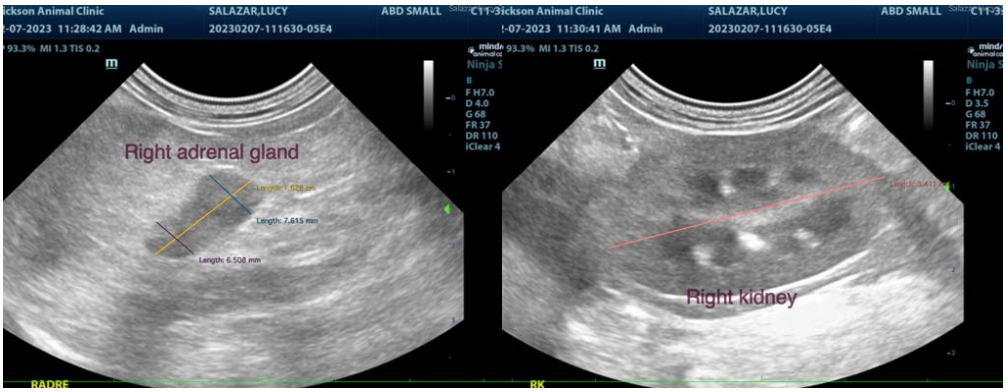
INVOICE

42621

DATE

2/7/23





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.

Dr Brittany Sinclair, BVSc(hons), DACVECC
info@SonoPath.com