



PATIENT PRESENTING CLINICAL SIGNS

Zoey Connell

History: Zoey presented for annual exam and vaccines on 06/05/23. Zoey was last seen at affordable pet care and was started on Denamarin . Eating, drinking, urinating normally- occasional diarrhea. Not currently on any medications after the Denamarin.

SPECIES

Canine

Abnormal PE/Chem/CBC/UA Results: PE- Temp: 99.3F (otic), HR: 96 bpm, RR: 60, MM: tacky, CRT: 2 sec General Appearance: Anxious Hydration: Slightly dehydrated Eyes: Nuclear sclerosis OU Ears: Red inflamed ear AND DARK DEBRIS AD, HAIR IN CANALS AU Oral Cavity: Moderate to severe tartar and gingivitis Nose: No obvious abnormalities observed Cardiovascular: Grade 3 out of 6 left sided systolic heart murmur Respiratory: Lungs auscultate clear; trachea clear Abdomen: Abdomen palpates normally although not able to palpate deeply due to tenseness - ORGANOMEGALY LIVER Rectal: Anal sacs expressed, MODERATE INTERNAL DIGITAL PRESSURE USED - EXUDATE IS THICK AND TAN Musculoskeletal: Generalized muscle atrophy Integument: Scales (DANDRUFF), SMALL DERMAL MASS 0.5 LEFT THORAX Lymph Nodes: Lymph nodes are all normal in size Urogenital: Owner reports normal eliminations; external genitalia appears normal; bladder palpates normally Neurologic: No apparent abnormalities

BREED

Poodle Mix

SEX

Spayed female

AGE

9 years

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, and visible pelvic urethra were of normal thickness. The ureters were not visible which is normal. There was normal wall layering with no masses, uroliths or abnormal thickening visualized. Urine had increased echogenicity with no distinct gravity dependent or mobile debris. No evidence of inflammatory or neoplastic changes were noted.

WEIGHT

22 lbs

INTERPRETED BY

Dr Brittany Sinclair, BVSc(hons), DACVECC

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 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 4.85 cm and the right kidney measured 5.12 cm.

IMAGING PERFORMED BY

Jamie Baugh

Adrenal Glands

HOSPITAL NAME

True North VS

The caudal pole of the left adrenal gland was visualized and was enlarged at 0.7 cm, slightly rounded and hypoechoic. The right adrenal gland was not definitively visualized. The right adrenal gland was not definitively visualized but the vasculature in the area was within normal limits.

REFERRING VET

Dr. Baugh

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.

INVOICE

47859

DATE

6/20/23

Liver

The liver is subjectively enlarged in size with slight rounding of lobes and homogenous hyperechoic parenchyma with no specific nodules or masses. Vascular and biliary tracts are of normal volume with



PATIENT

Zoey Connell

no evidence of congestion. No pathological hepatic lymphadenopathy observed. The gall bladder is moderately distended with anechoic fluid, with hyperechoic non-shadowing debris present. There is no surrounding free fluid or signs of active inflammation.

SPECIES

Canine

Gastrointestinal

The stomach contains minimal luminal contents. It measures at a normal thickness of 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

Poodle Mix

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.

SEX

Spayed female

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.

AGE

9 years

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.

WEIGHT

22 lbs

Lymph Nodes

INTERPRETED BY

Dr Brittany Sinclair,
BVSc(hons), DACVECC

No clinically significant lymphadenopathy or abnormalities noted.

IMAGING PERFORMED BY

Jamie Baugh

Free Abdomen

No masses or free fluid were noted.

HOSPITAL NAME

True North VS

ULTRASONOGRAPHIC FINDINGS

Primary Findings

REFERRING VET

Dr. Baugh

1. Hyperechoic hepatomegaly
2. Gall bladder debris
3. Degenerative renal changes with non-obstructive nephroliths
4. Enlarged caudal pole of left adrenal gland

INVOICE

47859

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Hepatic parenchymal changes are a common finding in the face of endocrinopathies, infectious or inflammatory hepatitis (bacterial, viral, auto-immune other), and neoplasia among other things. As liver enzymes are present, fine needle aspirate is recommended to further define. Ultimately liver biopsy may be required for more definitive diagnosis.

DATE

6/20/23



PATIENT

Zoey Connell

SPECIES

Canine

BREED

Poodle Mix

SEX

Spayed female

AGE

9 years

WEIGHT

22 lbs

INTERPRETED BY

Dr Brittany Sinclair,
BVSc(hons), DACVECC

IMAGING PERFORMED BY

Jamie Baugh

HOSPITAL NAME

True North VS

REFERRING VET

Dr. Baugh

INVOICE

47859

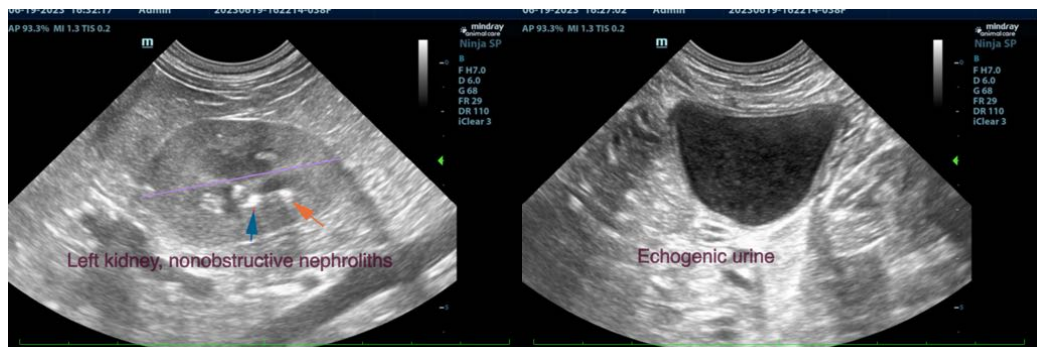
DATE

6/20/23

Gall bladder debris may be an incidental finding given lack of surrounding inflammation. In the face of elevated ALKP ursodiol could be given as a choleric and empiric treatments (SAM-E, milk thistle, Vitamin E) could be tried. If liver supportive medications do not improve liver enzymes, a course of empiric antibiotics (clavamox, enrofloxacin) could be considered to cover for infectious cholangiohepatitis, though the lack of surrounding inflammation makes this less likely. Imaging should be rechecked on a routine basis for monitoring (q3-6mo) or if further significant increase in liver enzymes and/or new clinical signs are noted. Investigation for endocrinopathy such as hyperadrenocorticism or hypothyroidism should be considered as an underlying cause predisposing to gall bladder debris accumulation.

Left caudal pole adrenomegaly could be secondary to hormonal stimulation as is seen with hyperadrenocorticism. It may also represent a variation of normal or response to stressful illness. This could also be an explanation for elevated liver values, especially ALKP. Ultimately adrenal function testing is required for more definitive diagnosis. A urine cortisol creatinine ratio could be used as a screening test, and subsequent testing for hyperadrenocorticism should be considered (ACTH stimulation test vs LDDST).

Renal changes are likely age related degenerative changes. Nephroliths may act as a nidus of infection and predispose to urinary tract infections. They can also cause sterile inflammation leading to renal hematuria. They have the potential to move into the ureters or bladder causing obstructive uropathy.





PATIENT

Zoey Connell

SPECIES

Canine

BREED

Poodle Mix

SEX

Spayed female

AGE

9 years

WEIGHT

22 lbs

INTERPRETED BY

Dr Brittany Sinclair,
BVSc(hons), DACVECC

IMAGING PERFORMED BY

Jamie Baugh

HOSPITAL NAME

True North VS

REFERRING VET

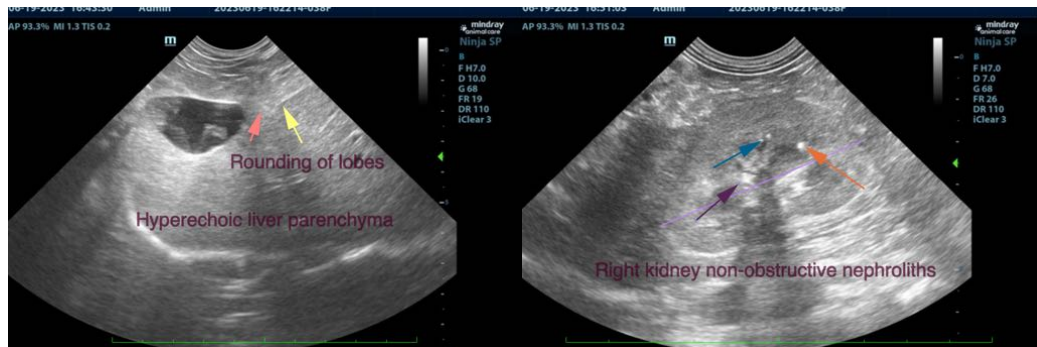
Dr. Baugh

INVOICE

47859

DATE

6/20/23



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