



PATIENT

Nix Nadarewistch

SPECIES

Canine

BREED

Pit Bull mix

SEX

Spayed Female

AGE

11 years

WEIGHT

33 lbs

INTERPRETED BY

Lisa Carioto, DVM,
DVSc, Diplomate
ACVIM

IMAGING PERFORMED BY

Dr. Harris

HOSPITAL NAME

TotalBond VH Bethel

REFERRING VET

Dr. Toner

INVOICE

97767

DATE

3/24/22

PRESENTING CLINICAL SIGNS

History: 11YO Pit Bull presented for polyuria, polydipsia, polyphagia, and weight loss. Pt had lost about 10lbs since last visit one year ago. On presentation, pt has moderate muscle wasting over epaxials and temporal muscles. Pot-belly appearance with possible hepatomegaly. Likely pyoderma with tan crusting skin lesions around base of tail and dorsum present. FAST scan revealed large gallbladder with possible forming sludge (concern for emerging gallbladder mucocele) and possible mass on spleen, but no free fluid. Rec referral to Bethel for full AUS. Has h/o elevated liver enzymes and Cushing's has been suspected (never confirmed).

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is adequately filled. The wall is mildly thickened and irregular. Free floating, echogenic debris is present within the lumen and which has settled by gravity. The latter casts an acoustic shadow at certain angles, however cystoliths are not observed. No abnormalities are present with the trigone or proximal urethra, and there is no evidence of polyps or a mass, or an obstruction. Based on the appearance of the urinary bladder, a bacterial cystitis is suspected. A urinalysis and urine culture and sensitivity are recommended.

The left kidney is within normal limits in size for the patient's weight (6.73 cm in length). The capsule is smooth. Multiple nephroliths of variable size are present, without signs of pyelectasia. The surrounding mesentery is not hyperechoic.

The right kidney is within normal limits in size for the patient's weight (7.48 cm in length). The capsule is smooth. Multiple nephroliths of variable size are present, without signs of pyelectasia. The surrounding mesentery is not hyperechoic.

Adrenal Glands

The left adrenal gland is not visualized.

The right adrenal gland cranial pole measures 0.50 cm, caudal pole measures 0.40 cm and 1.73 cm in length. No abnormalities are noted in the gland's shape, overall architecture, echogenicity or echotexture. The phrenico-abdominal vein and surrounding vasculature and mesentery are unremarkable.

Spleen

The portions of the spleen visualized do not show any abnormalities.

Liver

Subjectively, the liver appears enlarged. It is diffusely hyperechoic. One of the left liver lobes is very rounded, which is highly suspicious of a hepatoma. The hepatomegaly and diffuse hyperechogenicity of the liver are suggestive of a vacuolar hepatopathy, which may occur due to hyperadrenocorticism, as well as stress (i.e. secondary to chronic illness), in addition to cholestasis, based on the blood work



PATIENT	results. Other differential diagnoses such as immune mediated hepatitis, cholangitis/cholangiohepatitis are considered less likely. There are no obvious signs of neoplasia.
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Canine	
BREED	Gastrointestinal
Pit Bull mix	The gastric wall and pylorus are normal in thickness. There is no loss of definition of the normal architecture of the layers of the stomach wall. No obvious abnormalities are observed with its peristalsis.
SEX	The small intestinal wall thickness is within normal limits and there is no evidence of dilation. The definition of the wall layers is preserved. The colonic wall is mildly thickened at 0.24 mm, yet mural detail is well defined. There are no obvious signs of a mass, foreign body, infiltrative disease or an obstruction.
Spayed Female	
AGE	Pancreas
11 years	Both the left and right limbs of the pancreas have a coarse echotexture and are mildly heterogeneous. These changes are most likely due to nodular hyperplasia and areas of fibrosis. They are considered age related and possibly secondary to previous episodes of pancreatitis, respectively. There are no signs of active pancreatitis.
WEIGHT	Other
33 lbs	Lymph nodes: No abnormalities are observed.
INTERPRETED BY	Abdominal effusion is not visualized.
Lisa Carioto, DVM, DVSc, Diplomate ACVIM	
IMAGING PERFORMED BY	ULTRASONOGRAPHIC FINDINGS
Dr. Harris	<ul style="list-style-type: none"> A urinary tract infection is strongly suspected in addition to some of the sediment that is causing an acoustic shadow, i.e., some mineralization is present. Pyelonephritis cannot be excluded despite the absence of overt sonographic signs, particularly in light of the blood work results. That, or chronic renal disease is contributing to Nix's generalized muscle atrophy and weight loss. Both the nephroliths and bladder sediment are likely acting as a nidus for infection. The right adrenal gland is within normal reference range; this does not exclude a diagnosis of hyperadrenocorticism. The left adrenal gland was not identified during today's ultrasound. A re-evaluation may be performed in the future. There are no obvious signs of a splenic mass from the portions of the spleen that were visualized.
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- The hepatomegaly and diffuse hyperechogenicity of the liver are suggestive of a vacuolar hepatopathy, which may occur due to stress i.e. chronic illness or hyperadrenocorticism. Cholestasis and cholecystitis are suspected based on the hepatic and gallbladder changes observed, respectively. An obvious mucocele is not observed at this time, however, the presence of mucus strands may be suggestive of a mucocele in its early development. Therefore, a re-evaluation of the gallbladder is recommended in 2-3 months.

SPECIES

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- A hepatoma is suspected based on the rounded liver lobe on the left.

BREED

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- Nodular hyperplasia and fibrosis of the pancreas are suspected. There are no signs of active pancreatitis or neoplasia.

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

A urine culture and sensitivity is strongly recommended. Amoxicillin-clavulanic acid or a fluoroquinolone is recommended pending the culture results to treat a possible pyelonephritis. Prolonged treatment will be required due to the presence of nephroliths.

AGE

11 years

Once the urinary tract infection is under control further diagnostics for hyperadrenocorticism can be pursued.

WEIGHT

33 lbs

Evaluation of Nix's diet is recommended based on his propensity to develop sediment in the bladder and nephroliths. The diet chosen should be restricted in phosphorus, although a component of the elevated renal parameters, including the SDMA, may be due to pyelonephritis.

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Ursodeoxycholic acid may be recommended, particularly if Nix is showing signs of gastroesophageal reflux.

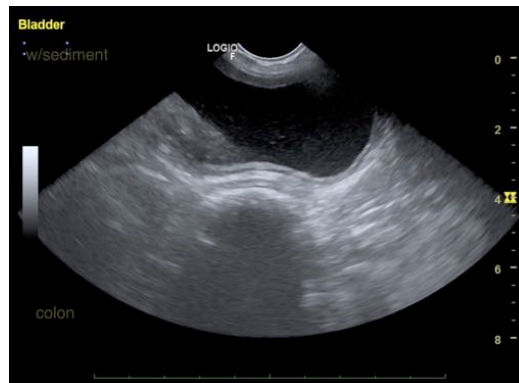
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Nix is an extremely complicated patient, and although some treatment recommendations have been described, an internal medicine consult is suggested in order to describe all possible options in further detail.

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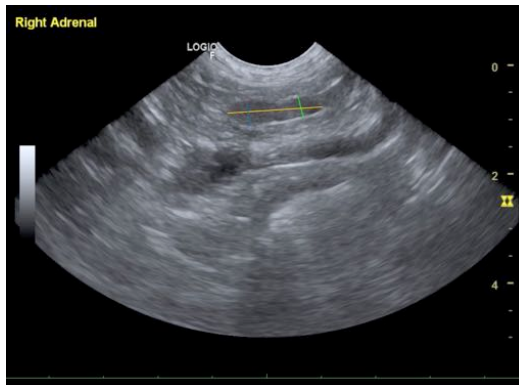
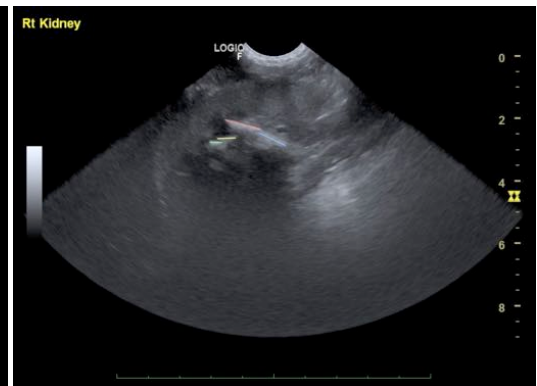
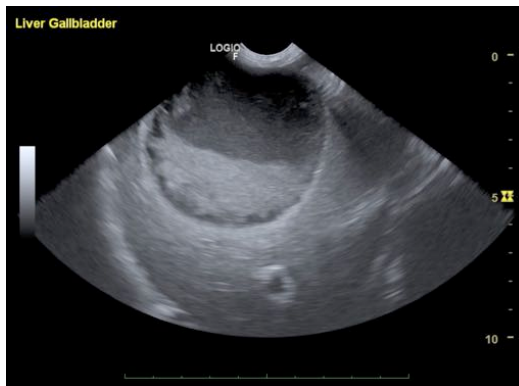
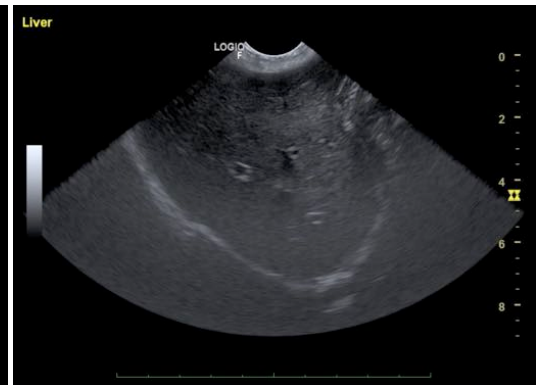
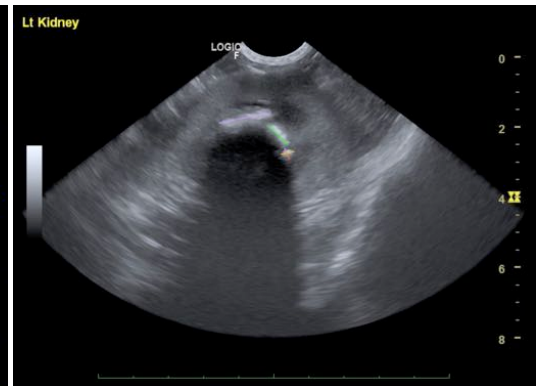
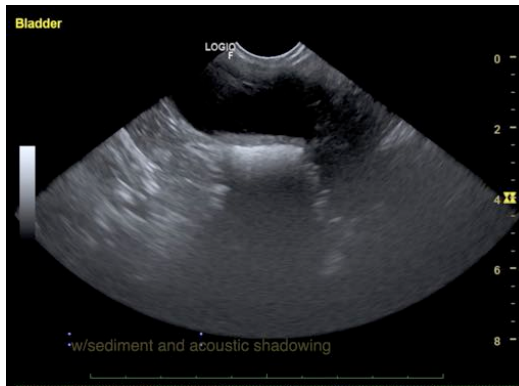
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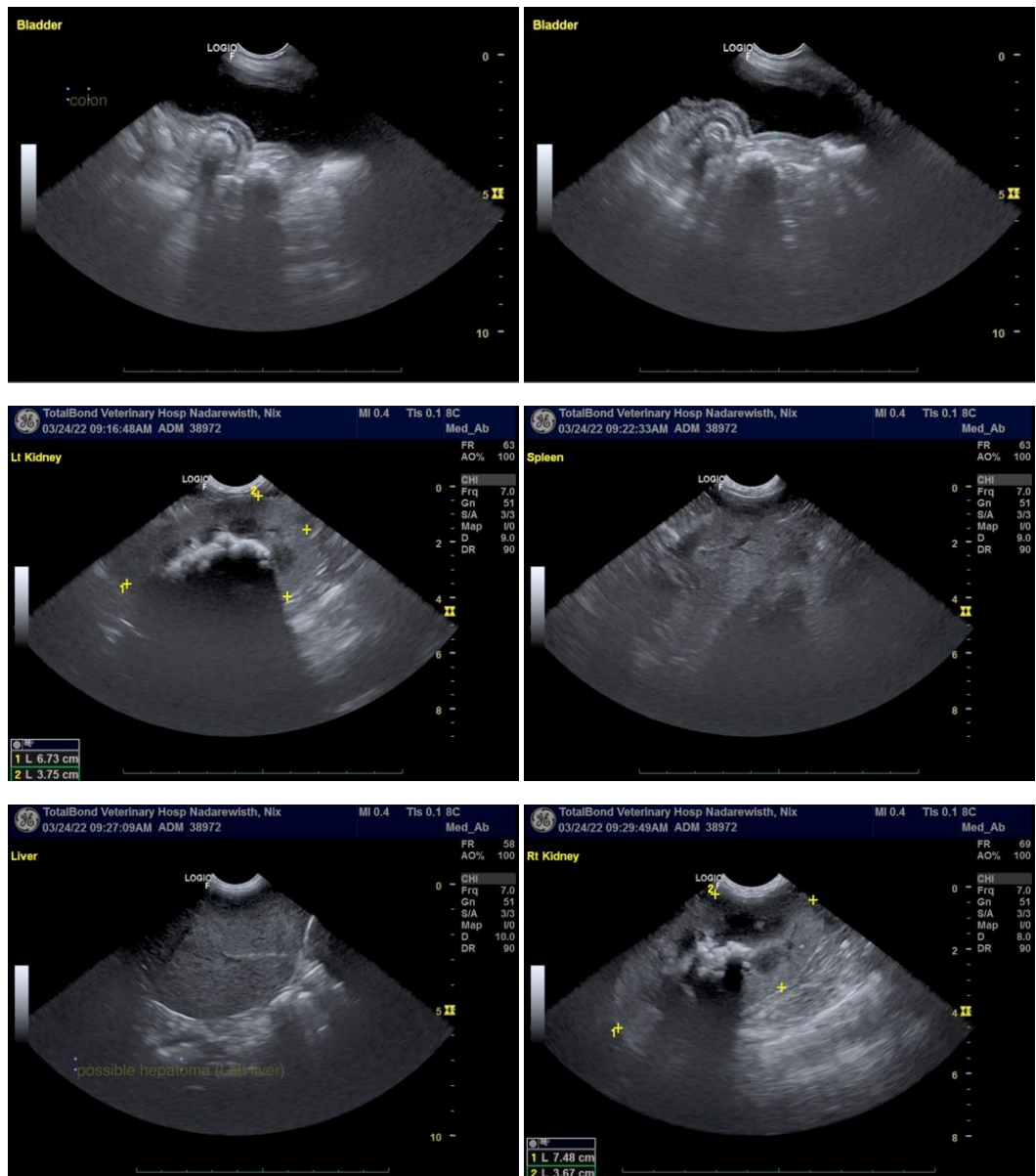
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Lisa Carioto, DVM, DVSc, Diplomate ACVIM

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