



PATIENT

Kitty Noga

SPECIES

Canine

BREED

Chihuahua

SEX

Female

AGE

17 Years

WEIGHT

5.4

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Sam Doverspike

HOSPITAL NAME

Franklin AC, Inc.

REFERRING VET

Sam Doverspike

INVOICE

14522

DATE

4/1/22

PRESENTING CLINICAL SIGNS

History: Their DVM found elevated Liver Enzymes early in March when dog in for ADR. (ALP: 303, ALT: 391, AST 336, T. Bil: 0.7 WBC 20,000/ Was put on Clavamox and Denamarin for 2 weeks. Clinically dog is much better at home... March 30th labs show worse liver (ALP: 1500, ALT: 444, AST: 85, T. Bil: 0.2 GGT: 137 No CBC done. Dog is not spayed; last known heat cycle was 1 year ago and per owner is not PU/PD and has no vaginal discharge

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The ureters were not visible which is normal. No uroliths or sediment were visualized and anechoic urine was present. No evidence of inflammatory or neoplastic changes were noted. Ureteral papillae were normal.

The **kidneys** revealed largely normal size and structure, corticomedullary definition and ratio (cortex 1/3 of medulla) were essentially maintained with some moderate age-related loss of curvilinear patterns regarding the capsule and C/M junction. The cortices presented largely uniform texture with some increased echogenicity expected for his age patient. Medullary structure differed distinctly from that of the cortex and no evidence of pelvic dilation was present. The right kidney measured 3.21 cm. The left kidney measured 3.08 cm.

Adrenal Glands

The **left adrenal gland** was visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The left adrenal gland measured 0.54 cm at the caudal pole and 0.46 cm at the cranial pole.

The **right adrenal gland** was slightly enlarged and mildly irregular. The cranial pole of the right adrenal gland was enlarged at 1.2 cm, consistent with right adrenal adenoma. Impingement on the vena cava was noted without evidence of obstruction.

Spleen

The **spleen** presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule was smooth without noticeable expansion or deviation from within the spleen or adjacent pathology. The splenic vasculature demonstrated normal volume without signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarctual changes were noted.

Liver

The **liver** revealed mild increased portal markings. A hepatic lymph node was mildly enlarged, measuring 1.8 cm x 1.1 cm. The gallbladder was mildly overdistended, measuring 3.13 cm at maximum width with minor excessive dependent gallbladder debris (not to the level of mucocele formation). Manual expression of the gallbladder would be ideal.

Gastrointestinal



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Examination of the **gastrointestinal tract** revealed a stomach and intestine free of stasis, of normal wall thickness, acceptable curvilinear mural detail, and peristaltic activity. Small and large intestine demonstrated normal luminal chyme and stool consistency respectively. No obstructive or overt infiltrative disease was noted. No associated abnormal lymphatic activity was noted.

SPECIES

Pancreas

Canine

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

BREED

Chihuahua

Other

SEX

The **uterus** was dilated in this patient, measuring 9.0 mm. Anechoic fluid was present.

Female

ULTRASONOGRAPHIC FINDINGS

AGE

17 Years

- Pyometra/mucometra
- Nonspecific inflammatory hepatopathy, may be related to underlying pyometra/mucometra
- Emerging gallbladder mucocele
- Right adrenal nodule
- Age-related abdominal changes otherwise

WEIGHT

5.4

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Ovariohysterectomy recommended. Manual expression of the gallbladder and liver biopsy would be ideal at the time of surgery (if possible). Blood pressure measurements recommended. If the patient appears Cushingoid or hypertension is present, right adrenalectomy at ovariohysterectomy would be indicated. However, the most urgent issue is the uterine presentation and manual expression of the gallbladder (if possible) at surgery with liver biopsy +/- right adrenalectomy.

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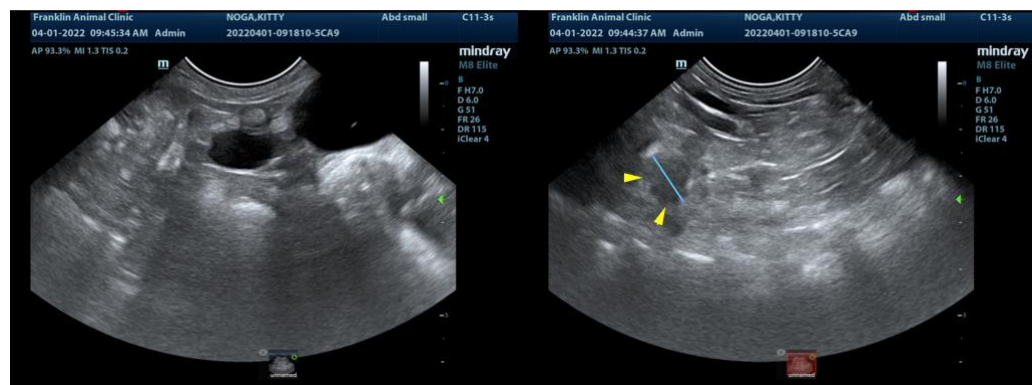
Sam Doverspike

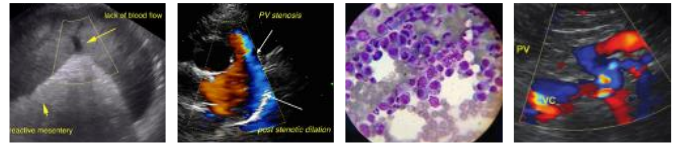
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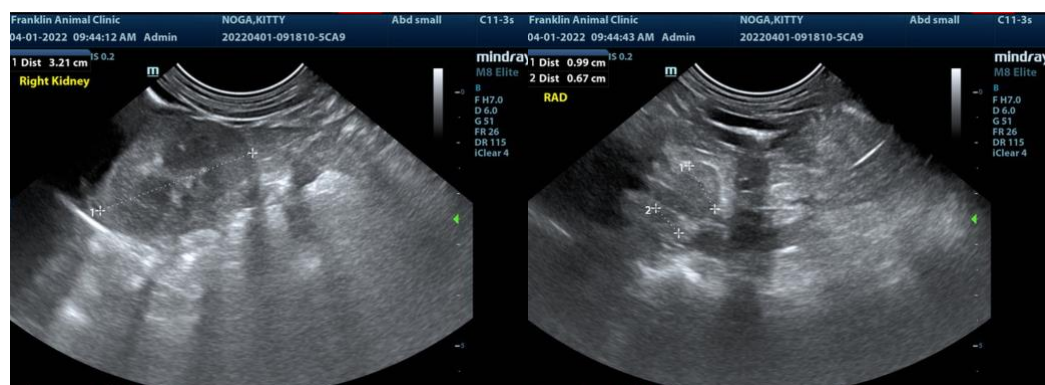
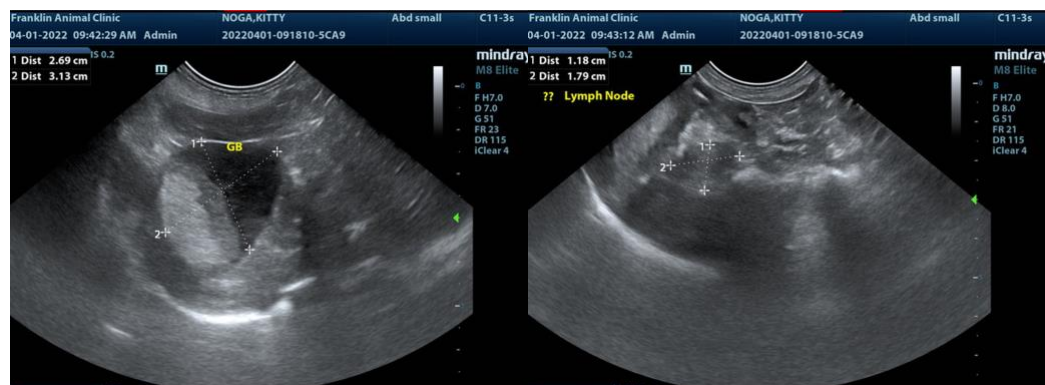
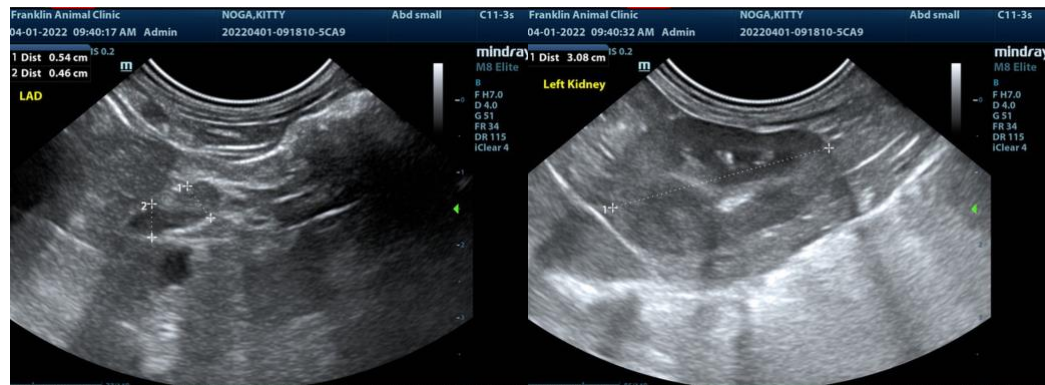
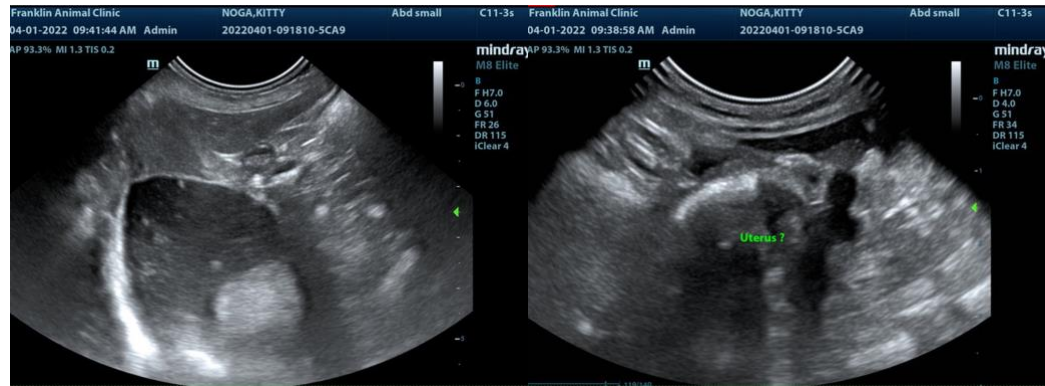
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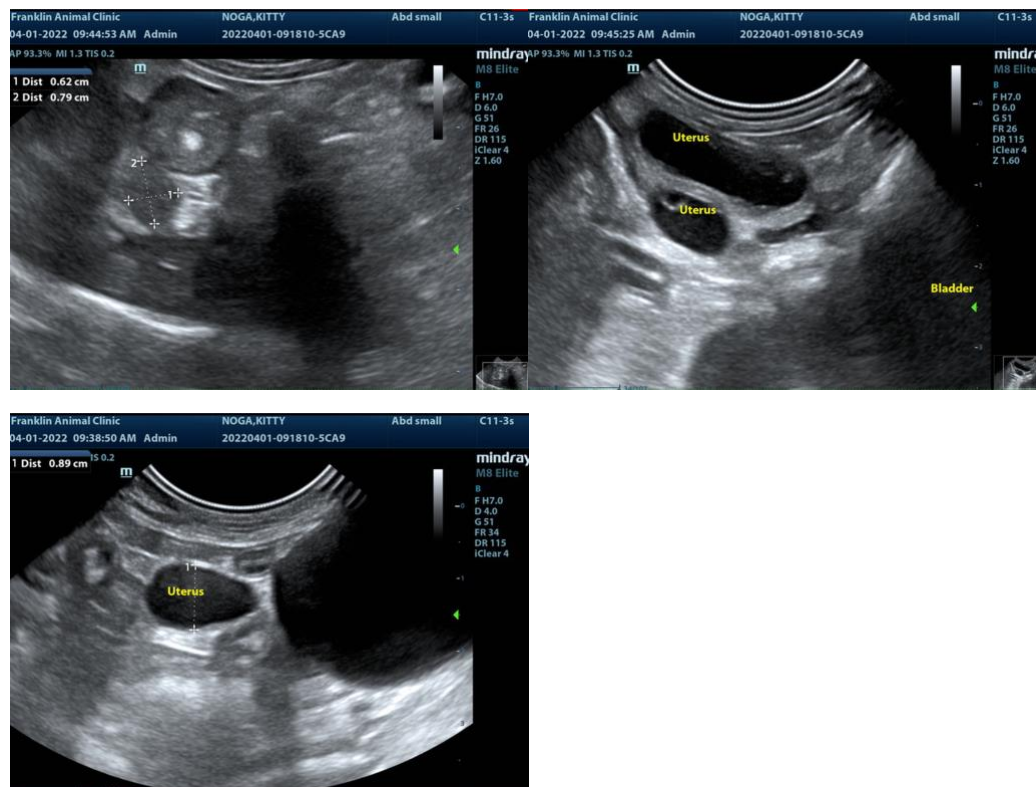
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Eric Lindquist, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com
info@SonoPath.com