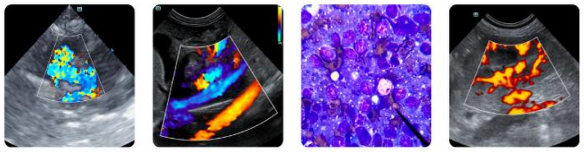

**PATIENT**

Nina Sutton-Falk

**SPECIES**

Feline

**BREED**

DSH

**SEX**

FS

**AGE**

14yr

**WEIGHT**

8.0lb

**INTERPRETED BY**

R. McKenzie Daniel, DVM, DABVP (Canine and Feline)

**IMAGING PERFORMED BY**

Dr Ken Leal

**HOSPITAL NAME**

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23119

**DATE**
12/04/2025

## PRESENTING CLINICAL SIGNS

Ascites Pot Belly anorexia

Abnormal PE/Chem/CBC/UA Results: Azotemia, Phos = 8.2 WBC increased neutrophils increased HCT = 30% Radiographs show ascites and bronchial pattern in lungs

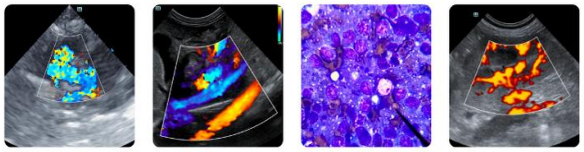
## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN AND HEART

| **FELINE CARDIAC PARAMETERS** | **BODY WEIGHT** (kg) | **HR** (BPM) | **IVSd** (cm) | **LVIDd** (cm) | **LVWd** (cm) | **FS** (%) | **EF** (%) |
|---|---|---|---|---|---|---|---|
| **NORMAL PARAMETER** | ------ | 150-240 | 0.3-0.6 | 1.0-2.1 | 0.25-0.6 | 35-67 | 80-100 |
| **PATIENT** | -- | 193 | 0.45 | 1.2 | 0.45 | 45 | 78 |
| **FELINE CARDIAC PARAMETERS** | **LA/AO** M-Mode | **LA/AO HEART BASE** (Sisson) | **LAD** LA MAX 4 Chamber | | **LVOT VEL.** (m/s) | **RVOT VEL.** (m/s) | **IVRT** (m/) |
| **NORMAL PARAMETER** | <1.5 | 1.6 | 0.7-1.7 | | <1.6 | <1.3 | 40-60 |
| **PATIENT** | -- | 1.1 | 1.2 | | -- | 0.8 | NM |
| Sisson D et al. JVIM 1991; 5: 232, Jacobs et al. Am J Vet Res 1985; 46:1705 | | | | | | | |

### *Cardiac Presentation*

The echocardiogram in this patient demonstrated normal left atrial size and structure. Chamber volume and blood echogenicity were normal. The cranial and caudal mitral valve leaflets presented minor irregular age-related changes that are not clinically significant at this time with adequate extension in systole and union in diastole. No overt MR on Doppler. The left ventricle presented normal free wall and septal thicknesses with linear contour. The myocardium presented some echogenic remodeling consistent with expected age-related change. Contractility of the ventricular walls was adequate and in normal range for this breed and patient size. The left ventricular outflow tract demonstrated normal laminar flow with subjectively unremarkable structure. Subjective assessment of the right atrium and auricle revealed normal size, structure and content. No evidence of masses was noted. Tricuspid valvular assessment demonstrated expected findings for this age patient. The right ventricle was of normal size (1/3 diameter of LV), echogenicity and thickness. Pulmonic tract assessment revealed normal valve structure, laminar flow, and diameter (approx.1:1 pa/ao ratio). No dilation due to heartworm disease, cor pulmonale, stenosis, or pulmonic hypertension was noted. No visible pericardial or free pleural fluid was noted. The mediastinum was free of masses in the visible window.

### *Urinary System*





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The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no evidence of urine/lumen sediment, mineral, or calculi. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes was noted.

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and mild loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. The left kidney measured 3.5 cm in length. The right kidney measured 3.9 cm in length.

The area of the aortic trifurcation was free of pathology. No evidence of distal aortic thrombus.

### *Adrenal Glands*

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.46 cm width. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.53 cm width.

### *Spleen*

The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Acute to chronic inflammatory, neoplastic, or benign parenchyma changes were not noted.

### *Liver/Gallbladder*

Generalized hepatomegaly with rounded contour. Heterogeneous parenchyma exhibiting mid-liver non-homogenous intraparenchymal mass measuring ~ 3 cm in diameter with concurrent intermittent to separate non-disruptive variably echogenic intraparenchymal nodules. An example of a nodule measured 1.1 cm in diameter. Concurrent intermittent non-disruptive hepatic intraparenchymal cyst present. The gallbladder was indistinctly visualized without evidence of gallbladder distension or posthepatic stasis.

### *Gastrointestinal*

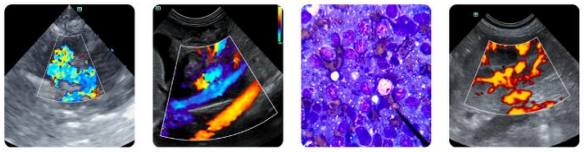
The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach contained minor retained anechoic fluid with no signs of obstruction or foreign material.

The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. Minor segmental non-obstructive intestinal ileus was present. The small intestinal wall measured 0.20 cm in width.

Normal visible colon wall layers were present with apparent formed feces in lumen.

### *Pancreas*

The pancreas exhibited indistinct enlargement and capsule differentiation compared to adjacent omentum with non-homogenous pancreatic parenchyma.





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## *Free Abdomen*

Generalized non-homogenous indistinctly nodular omentum.

Mild volume echogenic peritoneal effusion.

## ULTRASONOGRAPHIC FINDINGS

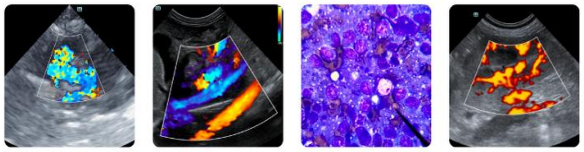
### Primary

- Normal cardiac structure / function
- Non-congested hepatomegaly exhibiting non-homogenous nodular parenchyma and intraparenchymal mass
- Indistinct enlarged non-homogenous hypoechoic pancreas
- Sonographically unremarkable gastrointestinal tract
- Bilateral mild chronic renal changes
- Generalized non-homogeneous indistinctly nodular omentum and mild volume echogenic peritoneal effusion - non-cardiogenic

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given no evidence of cardiomyopathy or reported subnormal ALB levels, diffuse hepatic disease or pancreatitis, neoplastic criteria i.e. carcinomatosis, lymphomatosis or similar is of primary concern. Multicentric neoplastic criteria given hepatic mass /nodules and indistinct nodular omentum is favored. Correlation with effusion analysis cytology +/- C/S if evidence of effusion inflammatory component, hepatic FNA cytology using 25ga needle and assuming normal clotting status +/- spec fPL is recommended. An extremely guarded prognosis is indicated.

New Jersey Mobile
FUELED BY SONOPATH VETERINARY ULTRASOUND



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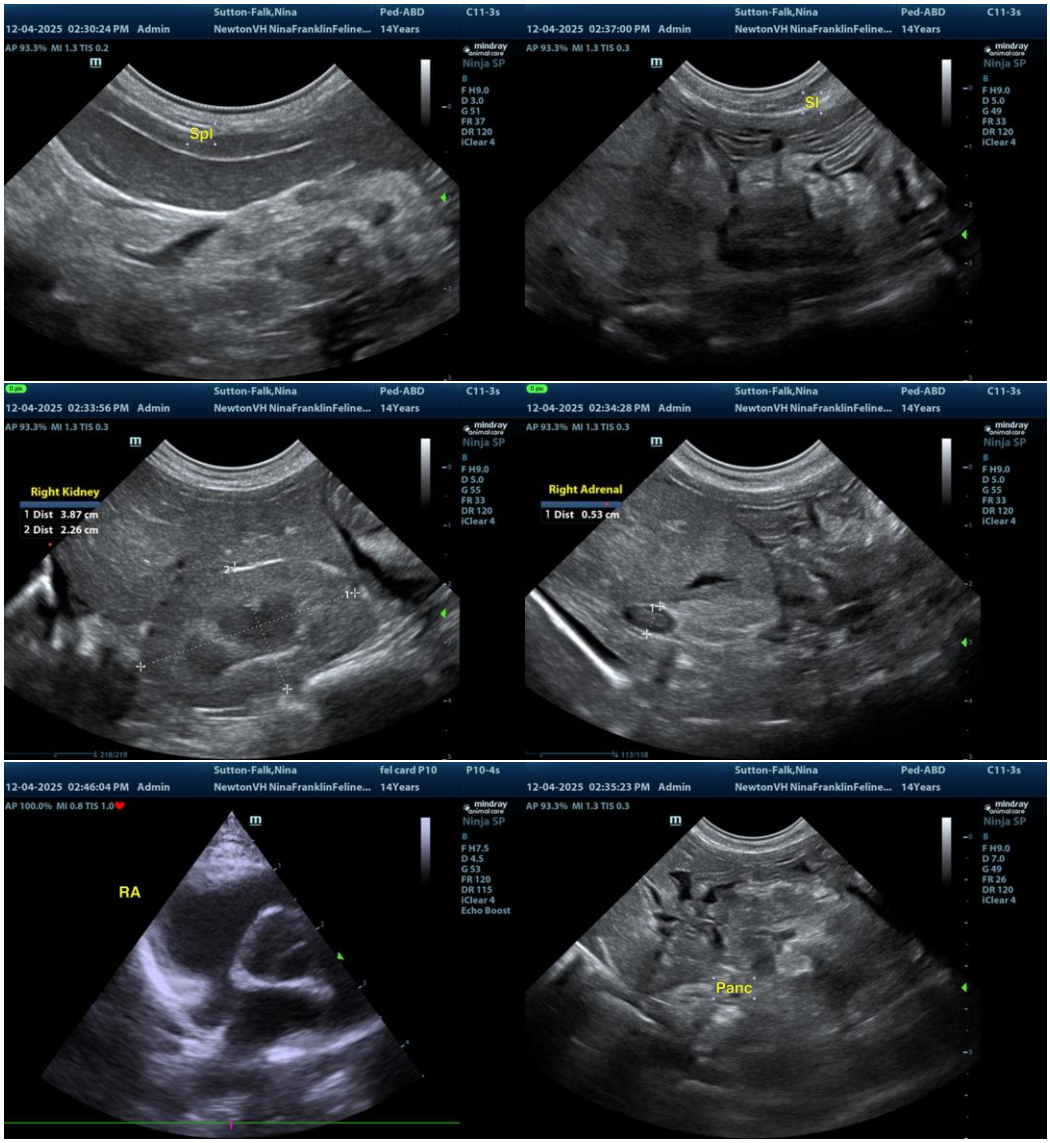

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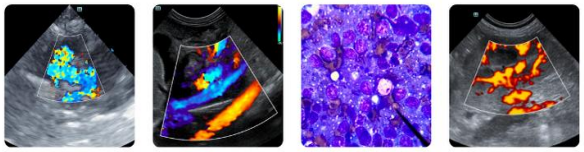

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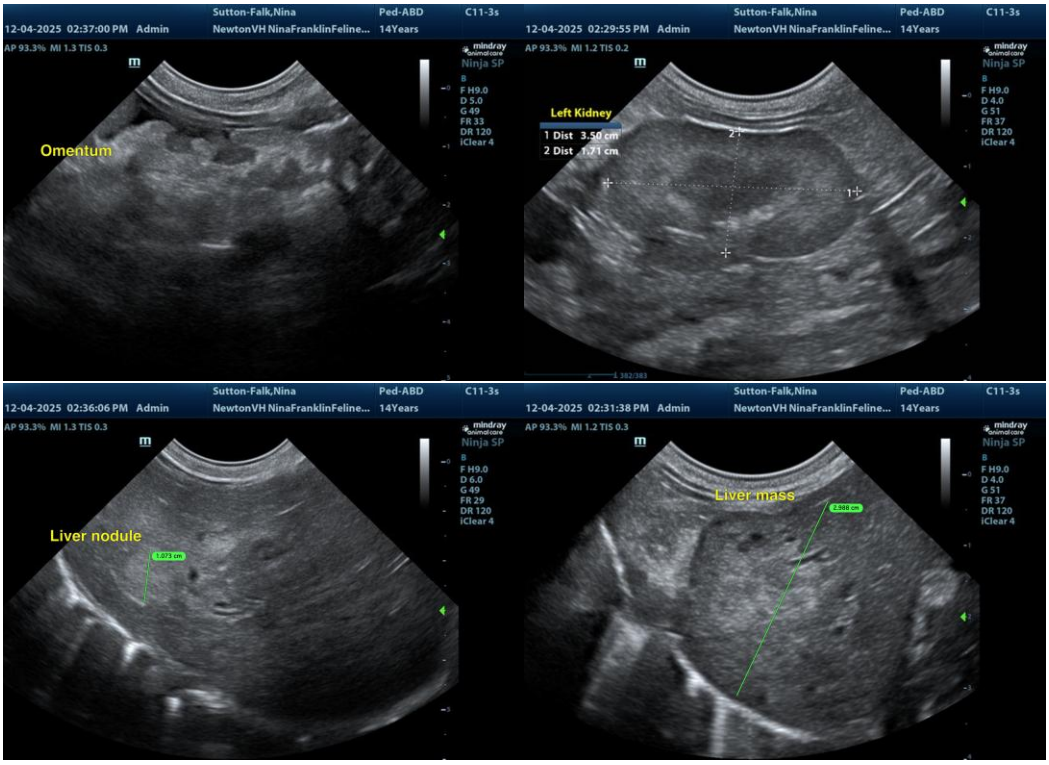


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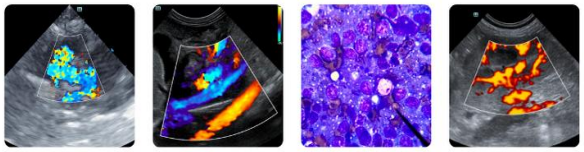

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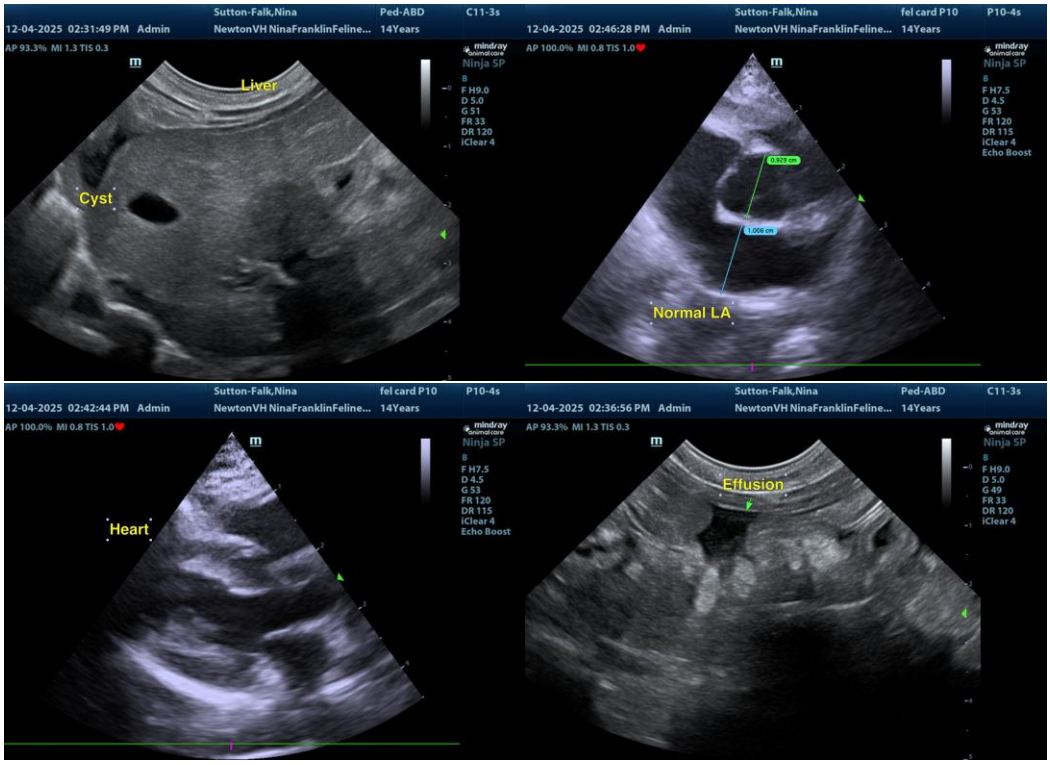


**The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.**

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.

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