



PATIENT

Patches Stucke

SPECIES

Feline

BREED

Siamese X

SEX

Neutered Male

AGE

est. 4 Years

WEIGHT

8.2 Pounds

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Crystal Hill

HOSPITAL NAME

Lakeshore Woods AH

REFERRING VET

Dr. Sam

INVOICE

21256

DATE

2/24/23

PRESENTING CLINICAL SIGNS

History: Recently adopted from shelter. Came in for not eating, distended abdomen, dehydration and severe distension. Blood work was unremarkable other than non-regenerative anemia. Have started Furosemide 20mg - 1/2 BID. Performed abdominocentesis and collected 450ml of clear but foamy fluid and sent to lab for analysis. Grade 3/6 heart murmur, HR 122 BPM. Concerns for neoplasia/FIP? Cat very thin for estimated age.

Abnormal PE/Chem/CBC/UA Results: Rads suggestive of moderate cardiomegaly

ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN

| 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 | -- | 189 | 0.43 | 1.27 | 0.43 | 53 | 87 |
| FELINE CARDIAC PARAMETERS | LA/AO (Boon) | LA/AO HEART BASE (Sisson) | LA 2D 4-chamber long axis AS to FW (Sisson) (cm) | LVOT VEL. (m/s) | RVOT VEL. (m/s) | IVRT (m/) | |
| NORMAL PARAMETER | <1.5 | 0.88-1.79 | 0.7-1.7 | <1.6 | <1.3 | 40-60 | |
| PATIENT | 1.2 | 1.46 | -- | 1.00 | .67 | NM | |
| Adapted from June Boon, Veterinary Echocardiography, 1998 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 based on 3 separate LA measurements. The cranial and caudal **mitral** valve leaflets presented normal linear structure and kinetics. The **left ventricle** presented normal thicknesses with linear contour and was not dilated nor restricted. The **myocardium** presented normal echogenicity without subjective evidence of significant fibrotic or ischemic disease. **Contractility** of the ventricular walls was adequate and in normal range for this patient evidenced by the fractional shortening measurement and subjective evaluation of the different regions and angles of the myocardium. The **left ventricular outflow** tract demonstrated normal laminar flow and subjective structural integrity. The **right atrium** and auricle revealed normal size, structure and content. No evidence of masses was noted or chamber overload. **Tricuspid** valvular assessment demonstrated adequate linear morphology and kinetics. The **right ventricle** was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. **Pulmonic** tract assessment revealed normal valve structure, laminar flow, and diameter (approx.1:1 pa/ao ratio). No visible **pericardial** or free pleura fluid was noted or extra cardiac pathology in the visible planes. The cranial **mediastinum and pericardial regions** were free of masses in the visible window.

Urinary System



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The **urinary bladder** and visible pelvic urethra were unremarkable for the level of repletion presented. The urine, however, did present some mildly echogenic debris consistent with mucous, exfoliated cells from renal or bladder origin, and/or blood clots as these echogenic changes can all present similarly. This is often related to urinary tract infection but may represent simple evidence of exfoliated debris or sterile inflammation. Cystocentesis, urinalysis, +/- culture would be recommended to rule out and define any UTI. This is a mild change.

The **kidneys** were mildly swollen with increased cortical echogenicity. Some loss of corticomedullary definition was noted. This is an early degenerative change and may be related to underlying infectious agents. Low grade nephrosis/nephritis pattern noted. The left kidney measured 4.08 cm. The right kidney measured 3.85 cm.

Adrenal Glands

The regions of the **adrenal glands** revealed no evidence of pathology.

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** was mildly swollen with slight increased portal markings. The gallbladder was unremarkable and empty. The common bile duct was normal (1.0 mm). The vena cava was volume contracted.

Gastrointestinal

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.

Pancreas

The **pancreas** was irregular and undulating contour. The pancreas was hypoechoic to surrounding mesentery. The pancreas measured up to 1.0 cm in width.

Free Abdomen

A mild amount of ascites was noted. Enhanced mesentery was noted, owing to the ascites.

ULTRASONOGRAPHIC FINDINGS

- Normal echocardiogram- no evidence of pathology
- Swollen, irregular liver
- Nonspecific ascites, strong concern for underlying FIP or infiltrative disease
- Enhanced mesentery, owing to ascites
- Hypoechoic, irregular pancreas with undulating contour
- Early degenerative changes in the kidneys with low-grade nephrosis/nephritis pattern
- Urinary bladder debris



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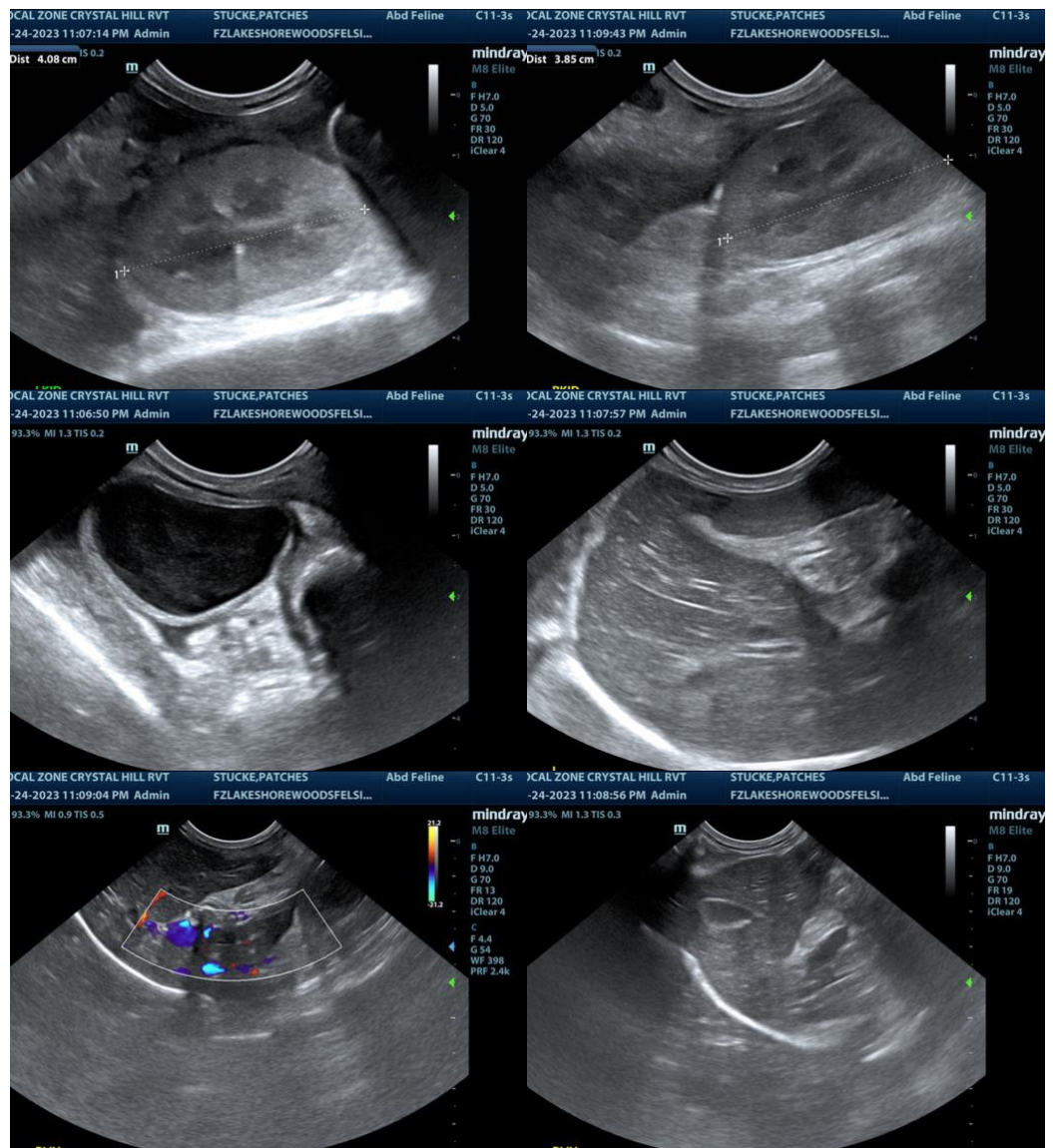
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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Abdominocentesis and cytospin of the free fluid and FNA of the liver are warranted. FIP titers upon the ascites would also be ideal. Prognosis is very guarded to poor. Urinalysis work up is recommended.



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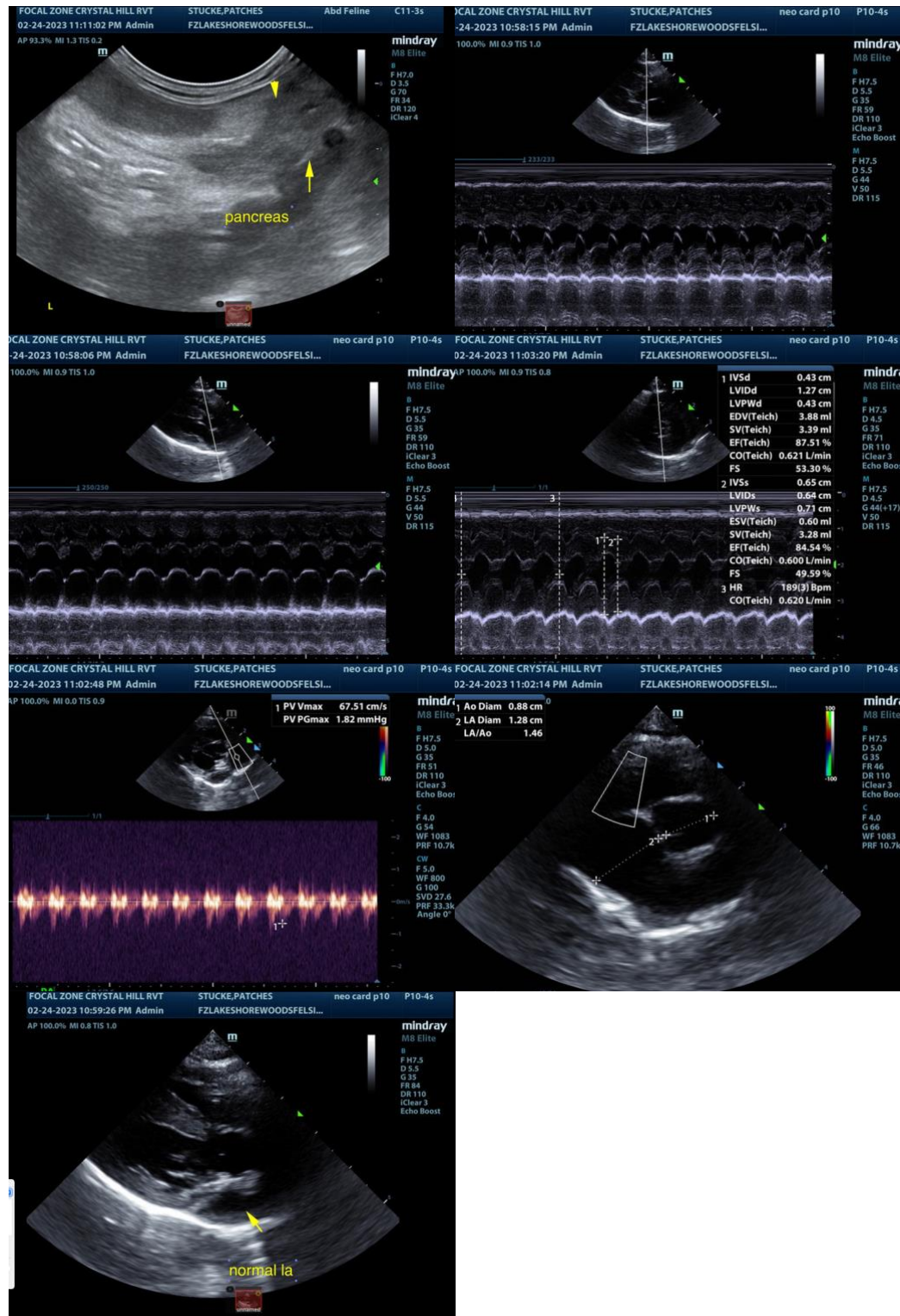
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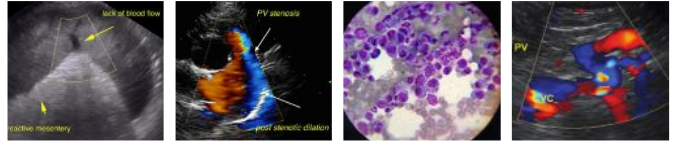
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.



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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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