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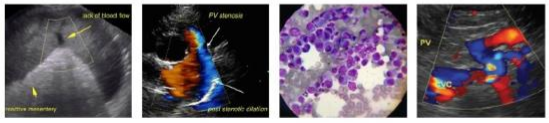

IMAGING PERFORMED BY
pawsonography@gmail.com 530-786-8340

**PATIENT**

Max Wood

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Neutered Male

**AGE**

11 Years

**WEIGHT**

18.5 Pounds

**INTERPRETED BY**

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

**IMAGING BY**

Loetitia Saint-Jacques, LVT

**HOSPITAL NAME**

Brighton Greens VH

**REFERRING VET**

Dr. Robin Janeway

**INVOICE**

37833

**DATE**

5/20/22

## PRESENTING CLINICAL SIGNS

loosing weight and not much appetite, splenomegaly and heart murmur Heart Murmur? Grade? Heart murmur present but difficult to hear heart on PE Current heart medications( Include dosage and frequency): None Physical exam findings: obesity and heart murmur Abnormal BW and UA: BUN low 13, UA USG 1.052, pH 6.5, 2+ proteinuria, 1+ bilirubinuria, 3+ blood, 0-1 struvites, patient is on c/d Radiograph Findings:(if possible, please send images via email) Radiographic Findings 3 orthogonal projections including the thorax and abdomen are provided. A radiographic report dated 10/30/20 is available for reference. Thorax : the patient is in higher body condition and there is intrathoracic fat deposition. The pleural space is normal. There is mild enlargement of the cardiac silhouette. Pulmonary vasculature and pulmonary parenchyma are within normal limits. Osseous abnormalities are seen. Abdomen : the stomach is empty. Small intestines are normal in diameter, containing small volumes of gas. There is a small volume gas and mildly desiccated feces in the large intestinal tract. There is a small, 1 cm soft tissue nodule adjacent to the spleen on the VD. The spleen is mildly generally enlarged. The liver is normal. The urinary tract is within normal limits. Abdominal serosal detail is appropriate. Musculoskeletal structures are within normal limits. Conclusion Mild cardiomegaly without evidence of decompensation. A cardiomyopathy is the most common differential. Echocardiography could be performed for further evaluation as clinically indicated. Persistent nonspecific splenomegaly. Static nodule adjacent for which differentials are unchanged. Mild constipation. Gastroenteritis or infiltrative enteropathy remain possible. Abdominal ultrasound could be performed for further evaluation as clinically indicated. Amy Norvall, DVM, DACVR 05/5/2022 3:58:57pm Reason for Ultrasound: Heart murmur
Abnormal PE/Chem/CBC/UA Results: HEART RATE AND RHYTHM: Heart Rate: 190 Heart Rhythm: Sinus Is this a Pre-operative / pre-anesthetic ECG?: Yes Was the patient in right lateral recumbency for this ECG?: Yes Was this patient ausculted by a veterinarian prior to the ECG today?: Yes Was an arrhythmia noted on physical exam?: No Heart Murmur: 1/6 Is a gallop rhythm present?: No Is patient on an anti-arrhythmic (Sotalol, Atenolol, Diltiazem or Digoxin)?: No Was atropine or glycopyrrolate administered prior to this ECG?: No Was the patient sedated prior to this ECG?: No Anxiety/nervousness of this patient during this ECG transmission: Average Anxiety Was an alpha-2 agonist (Domitor or Xylazine) given prior to this ECG?: No ECG AND CLINICAL ASSESSMENT: There are no pathologic arrhythmias noted on this ECG tracing. Left anterior fascicular block is noted. This could indicate left heart enlargement or idiopathic fibrosis of the conduction system. The reported heart murmur noted in this patient raises concern for underlying structural heart disease. DIAGNOSTIC RECOMMENDATIONS: An echocardiogram is advised to investigate the etiology of the murmur and characterize anesthetic risk. If an echocardiogram is not feasible, thoracic radiographs and NT-proBNP measurement are recommended to assess for clinically significant structural heart disease. Recommend a blood pressure if not previously performed. Recommend evaluation of thyroid status if not previously performed. A Cardiopet NT pro-BNP may be helpful in this case to screen for underlying cardiac disease (provided severe renal disease, hyperthyroidism or systemic hypertension is not present). OVERALL RECOMMENDATIONS: Recommend avoiding alpha-2 agonists, ketamine, or Telazol in the anesthetic protocol. Consider premedication with an opioid/benzodiazepine and induction with propofol, etomidate, or alfaxalone (preferred, if available). Heart rate, cardiac rhythm, pulse oximetry, and blood pressure should be monitored during the procedure, if possible.

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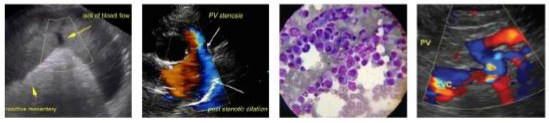

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## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### *Urinary System*

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2.0 cm exhibited normal thickness and tone. Primarily anechoic urine was present in the lumen. Minor particulate sediment was present without evidence of calculus formation. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic mural changes were noted.

Normal size and margination was 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 4.5 cm. The right kidney measured 4.4 cm.

The area of the aortic trifurcation was free of pathology.

### *Adrenal Glands*

The adrenal glands were uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.44 cm in width. The right adrenal gland measured 0.45 cm in width.

### *Spleen*

The spleen was borderline mildly enlarged with maintained symmetrical capsule contour. Normal overall splenic parenchyma echogenicity exhibiting mildly non-homogeneous echotexture and potential for subtle micronodular parenchymal changes. The spleen measured 1.1-1.2 cm in width at the level of the hilus. Normal splenic vascularity. No splenic masses noted. Intermittent, non-disruptive, hyperechoic parenchymal nodules were present.

### *Liver*

The liver was subjectively normal in size, structure, and contour. The liver parenchyma was mildly nonuniform and hypoechoic to the spleen with a moderate coarse echotexture and subjective mild to benign parenchymal remodeling. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was normal in size, yet appeared to be partially divided into two compartments. Anechioc content was present. The common bile duct was normal.

### *Gastrointestinal*

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with no signs of ileus, obstruction or foreign material. Gastric body wall measured 0.28 cm.

The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction or foreign material. Jejunum wall measured 0.25 cm. Ileocolic wall measured 0.30 cm.

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

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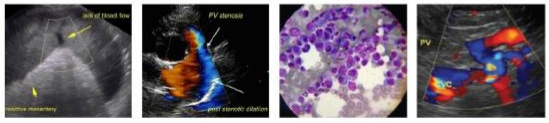

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***Pancreas***

The pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia.

***Free Abdomen***

No omental masses, lymphadenopathy or peritoneal free fluid.

## PRIMARY FINDINGS

- Mild chronic renal changes
- Borderline to mild splenomegaly exhibiting subtle non-homogeneous to indistinct micronodular parenchyma with intermittent non-disruptive hyperechoic nodules.
- Overtly normal gastrointestinal tract.
- Mild heterogeneous pancreas – non-specific, age related or patient variant, potential remodeling owing to previous inflammation, or low-grade to chronic inflammation.

## SECONDARY FINDINGS

- Possible partial bilobed gallbladder – normal variant in a cat.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The overall appearance of the spleen was non-specific with considerations including lymphoid hyperplasia, hematopoiesis, incidental splentitis with likely benign myelolipomas or areas of fibrosis or mineralization. Potential for splenic neoplasia such as sarcoma, lymphoma or other cannot be definitively excluded. Given the patient's weight loss, ultrasound guided FNA of the spleen assuming normal clotting status and using 25-gauge needle recommended for screening cytology and further clarification.

Potential for low-grade to chronic pancreatitis may be suspescted if evidence of cranial abdominal or subxiphoid discomfort on palpation.

A GI panel to include PLI/TLI/Cobalamin/Folate as well as three view chest radiographs and neurological examination are recommended to assess for or rule out occult disease which may cause weight loss.

Further renal staging to include urine C/S and protein: creatinine ratio on sterile urine sample may be considered.

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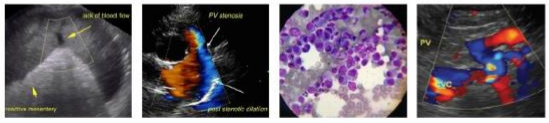

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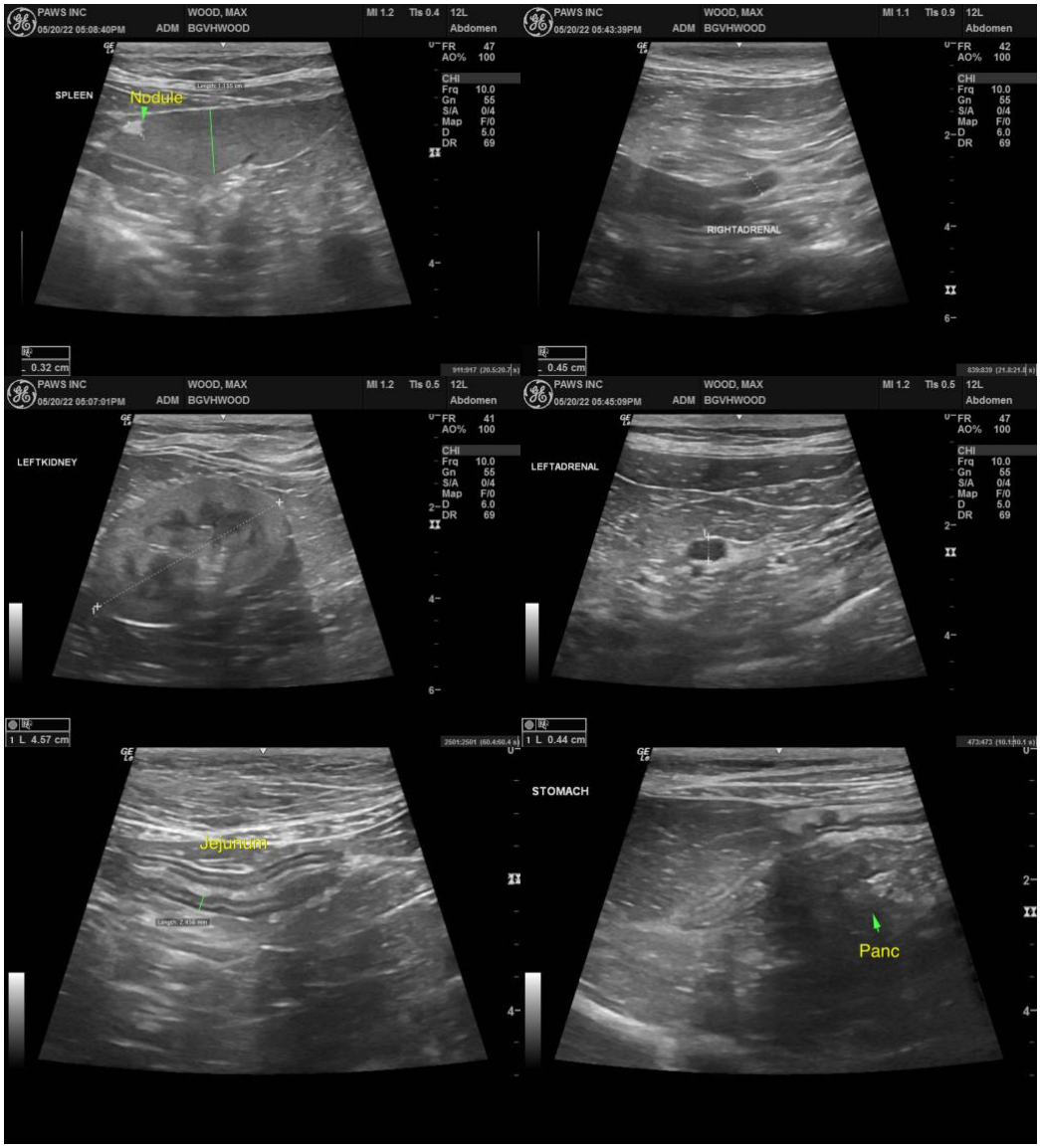

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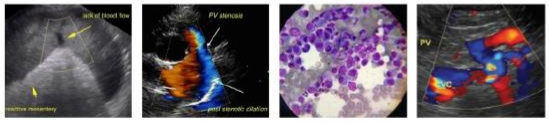

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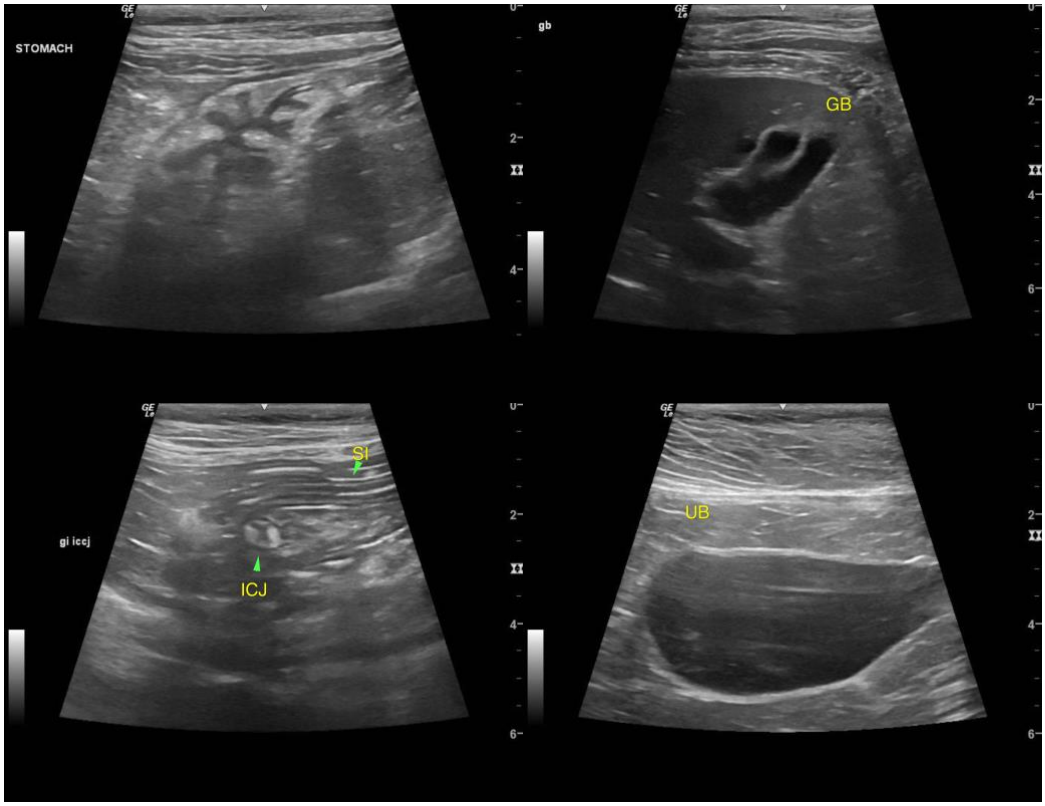


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**The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.**

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.

**R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)**
**info@SonoPath.com**