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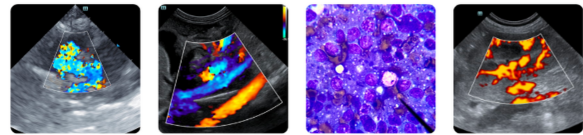


Clinical Sonography & Telecytology
Educational Teleconsultation Services™

PATIENT

Gracee Crawford

SPECIES

Canine

BREED

Chihuahua

SEX

Spayed Female

AGE

14 Years

WEIGHT

9.5 Pounds

INTERPRETED BY

Bradley Harris, DVM, DACVECC, DACVIM (Cardiology)

IMAGING PERFORMED BY

Sara Hansen

HOSPITAL NAME

Q Street AH

REFERRING VET

Dr. Rensema

INVOICE

35646

DATE

11/24/25

PRESENTING CLINICAL SIGNS

History: Clinical Exam Findings: Scan to evaluate causes of mild anemia, high ALP, and high BUN; potentially adding echo as a monitoring tool Significant clinical signs include: 2/6 Murmur, severe dental disease, marked nuclear sclerosis, pedunculated mass on left forefoot Patient is a diabetic with suboptimal management ABNORMAL Labwork Values RBC 5.5 Glucose 183; Fructosamine 540; 3+ glucosuria BUN 49, SDMA 11 and Creat 1.0 ALP 1989, ALT 124, AST 60 For ECHO Only: Blood Pressure will try to do day of exam HR/RR/BP: 144/24/? Is there a Heart Murmur? If so, please grade. 2/6 Current Medications Vetsulin 4IU BID Radiographic Findings None.

ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN

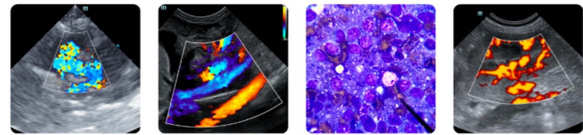
CANINE CARDIAC PARAMETERS	BW	HR BPM	LAD 4 ch Long	RAD 4 ch Long	La/Ao Heart Base	LVIDd	LVIDs
NORMAL PARAMETER		50-100			<1.6		
PATIENT	4.32	NM	2.02	1.16	0.97	2.15	1.17
CANINE CARDIAC PARAMETERS	**FS**	**EPSS**	**PV V MAX (m/s)**	**AV V Max (m/sec)**	**MR Vmax**	**TR Vmax**	**RPA distensibility (normal >30%)**
NORMAL PARAMETER	28-40	<0.6	0.7-1.6	0.7-1.7	4.5-5.5	< 2.7	
PATIENT	46	0.3	1.2	0.8	4.6	NM	20

Cardiac Presentation

The left atrium is normal in dimension. The left ventricle is normal in dimension with normal systolic function. The right atrium and ventricle are subjectively normal in dimension and systolic function. The mitral valve is thickened and redundant consistent with myxomatous changes, and there is minimal prolapse. There is evidence of moderate mitral regurgitation. The tricuspid valve leaflets are subjectively normal with trivial tricuspid regurgitation and no evidence of pulmonary hypertension. The left ventricular outflow tract demonstrated normal laminar flow and the visible aorta is unremarkable. The right ventricular outflow tract assessment revealed normal laminar flow, and appropriate diameter and distensibility. There is no evidence of semilunar valve insufficiency. There is no visible pericardial, pleural, or free peritoneal fluid noted. The cardiac chambers, pericardial and visible extra-cardiac regions were free of masses, spontaneous echo contrast, or thrombi.

Urinary System

The urinary bladder is adequately distended with anechoic urine. The bladder, trigone, and pelvic urethra are unremarkable with normal wall thicknesses and normal tone. The ureters were not



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visualized, which is a normal finding. There are no uroliths or sediment noted. The ureteral papillae appear normal. There is no evidence of inflammatory, infiltrative, or neoplastic disease.

The kidneys are normal in size. The cortices are hyperechoic with mildly irregular capsular contour. The cortex to medulla ratio is appropriate with no significant pyelectasis or pelvic dilation. There is a hyperechoic corticomedullary rim or band present with no significant mineralization noted. The left kidney measures 3.83 cm. The right kidney measures 4.15 cm.

Adrenal Glands

The adrenal glands are bilaterally enlarged with no overt capsular expansion or evidence of vascular invasion. The parenchyma is mildly heterogenous with normal phrenic vasculature. The left adrenal gland measures 0.86 cm x 1.97 cm. The right adrenal gland measures 1.03 cm x 1.81 cm.

Spleen

The spleen is smooth with homogeneous parenchyma and hyperechoic to liver and renal cortical parenchyma. The capsule is without noticeable irregularity or deformation. The splenic vasculature is normal without signs of congestion, spontaneous echo contrast, or thrombosis. No evidence of acute or chronic inflammatory, neoplastic, or infarct are documented. The spleen measures 0.76 cm at the hilus.

Liver

The liver is subjectively slightly enlarged with a diffusely hyperechoic parenchyma and slightly rounded capsular margins. There are subtle hypoechoic nodular changes throughout the parenchyma that do not distort the smooth capsule. The vasculature is normal with no evidence of congestion.

The gallbladder is appropriately thin walled with anechoic bile and a mild to moderate amount of suspended echogenic debris and dependent sediment. There is no intra- or extrahepatic biliary dilation. The cystic and common bile ducts are normal.

Gastrointestinal

The stomach and intestines are free of stasis and peristaltic activity, with no significant dilation noted. There is normal wall thickness and acceptable curvilinear mural detail. The pyloric-duodenal junction and ileocecocolic junction are patent, and the colon contains normal shadowing feces. There is no evidence of shadowing obstructive material or overt infiltrative disease noted. No associated abnormal lymphatic activity is documented.

Pancreas

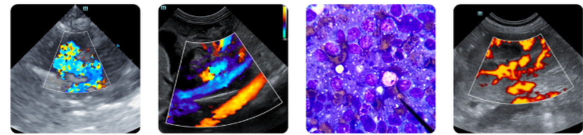
The base and limbs of the pancreas are isoechoic to surrounding omental fat. The pancreatic duct and capsular contour are normal. There is no overt evidence of active inflammatory or neoplastic disease.

Free Abdomen

There is no lymphadenopathy or free fluid.

ULTRASONOGRAPHIC FINDINGS

- The cardiac findings are consistent with degenerative/myxomatous mitral valve disease with minimal to mild hemodynamic effects consistent with ACVIM Stage B1 disease. It is unlikely that any current morbidity is of cardiac origin.



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- There is a hyperechoic renal corticomedullary band present, with a uniform corticomedullary ratio. This is most consistent with a medullary rim sign. There are mild degenerative renal changes noted, with a uniform capsular contour. This is an idiopathic finding, yet at times this finding in dogs can be related to tubular disease. Assessment for any proteinuria would be warranted if not already performed.

- The adrenal glands are mildly enlarged with no evidence of focal capsular expansion or vascular invasion noted. The parenchyma is uniform and there is no overt suspicion of neoplasia. This is considered likely a hyperplastic change associated with stress or adrenal endocrinopathy (PDH).

- The liver is mildly enlarged and uniform with hyperechoic parenchymal changes. There were subtle, hypoechoic heterogenous nodular changes. The gallbladder and common bile duct were unremarkable other than a minor amount of gallbladder sludge/debris. This is a common finding in patients with diabetes mellitus or other endocrinopathies.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Cardiac recommendations:
Given these findings, no cardiac therapy is recommended. There are no cardiac contraindications to anesthesia, fluid therapy, vasopressor therapy, or corticosteroids as indicated for further assessment and treatment. If not already performed, baseline thoracic radiographs and blood pressure are recommended. A recheck echocardiogram is recommended in 6 months.

Anesthesia considerations:
If anesthesia is necessary, alpha-2 agonists, ketamine, high dose acepromazine, and Telazol should be avoided. Fluid therapy during anesthesia should be considered at a conservative rate (e.g., 5 ml/kg/hour) if possible.

Diet:
A high-quality food from Hills, Royal Canin, Science Diet, Eukanuba, Iams, or Purina that is highly palatable with adequate protein and calories for maintaining optimal body condition is reasonable.

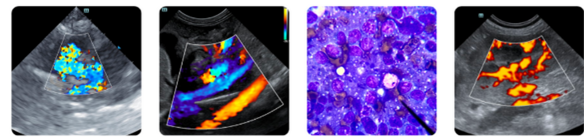
Activity:
No special considerations are necessary.

Abdomen recommendations:

A urinalysis and urines culture via cystocentesis are recommended to evaluate the urinary tract changes for potential urinary tract infection.

A UPC should be considered if the urine sediment is inactive.

An ACTH stimulation test and low dose dexamethasone suppression test are indicated to evaluate for potential hyperadrenocorticism.



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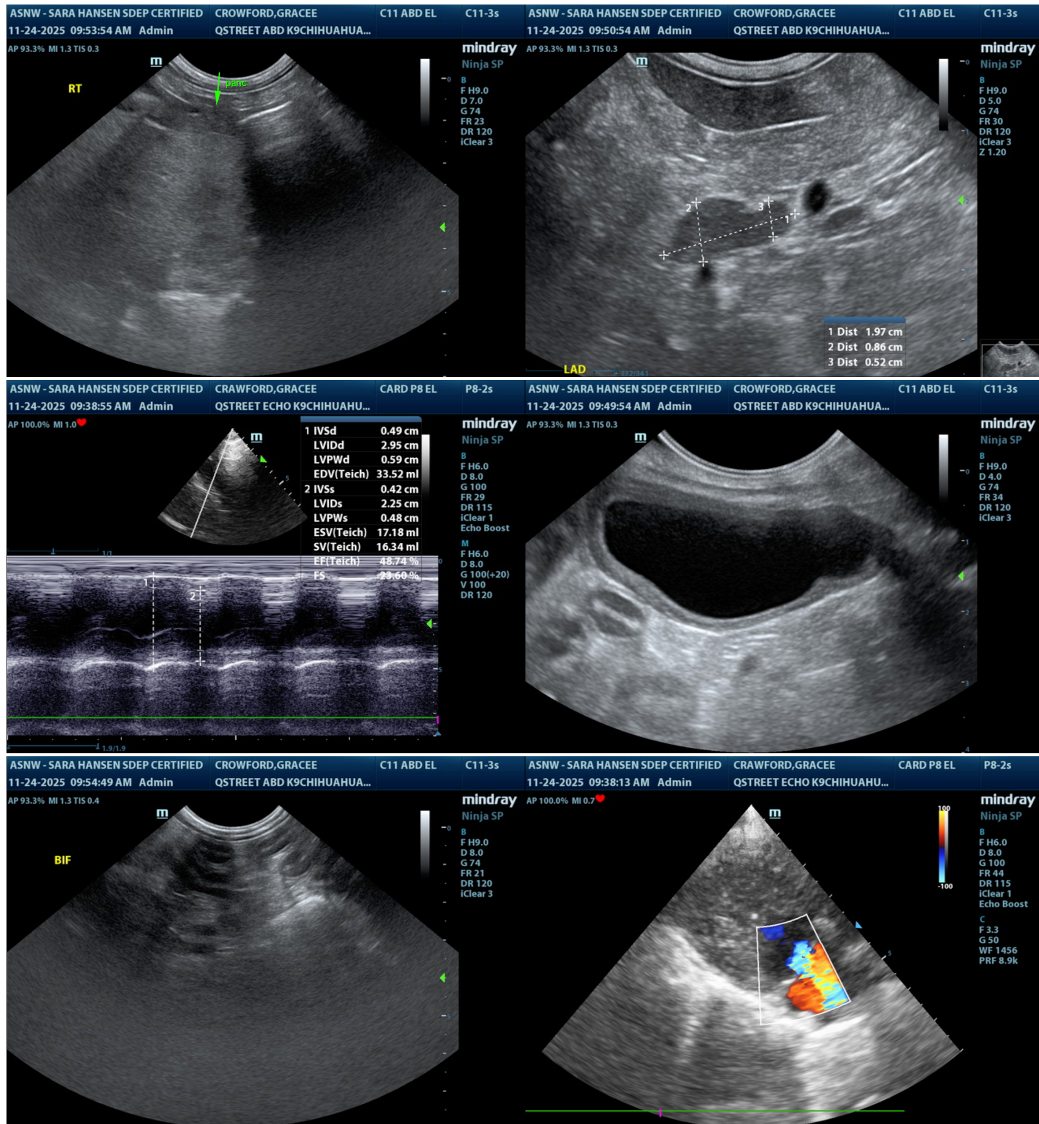
Fine needle aspirates of the liver with cytology are recommended. A coagulation profile and platelet estimate prior to sampling are indicated to ensure the absence of coagulopathy. Occasionally some tissues are poorly exfoliative, or cytology is non-specific, in which case biopsy with histopathology may be required for a definitive diagnosis.



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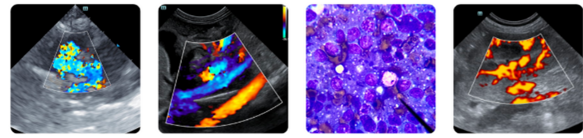

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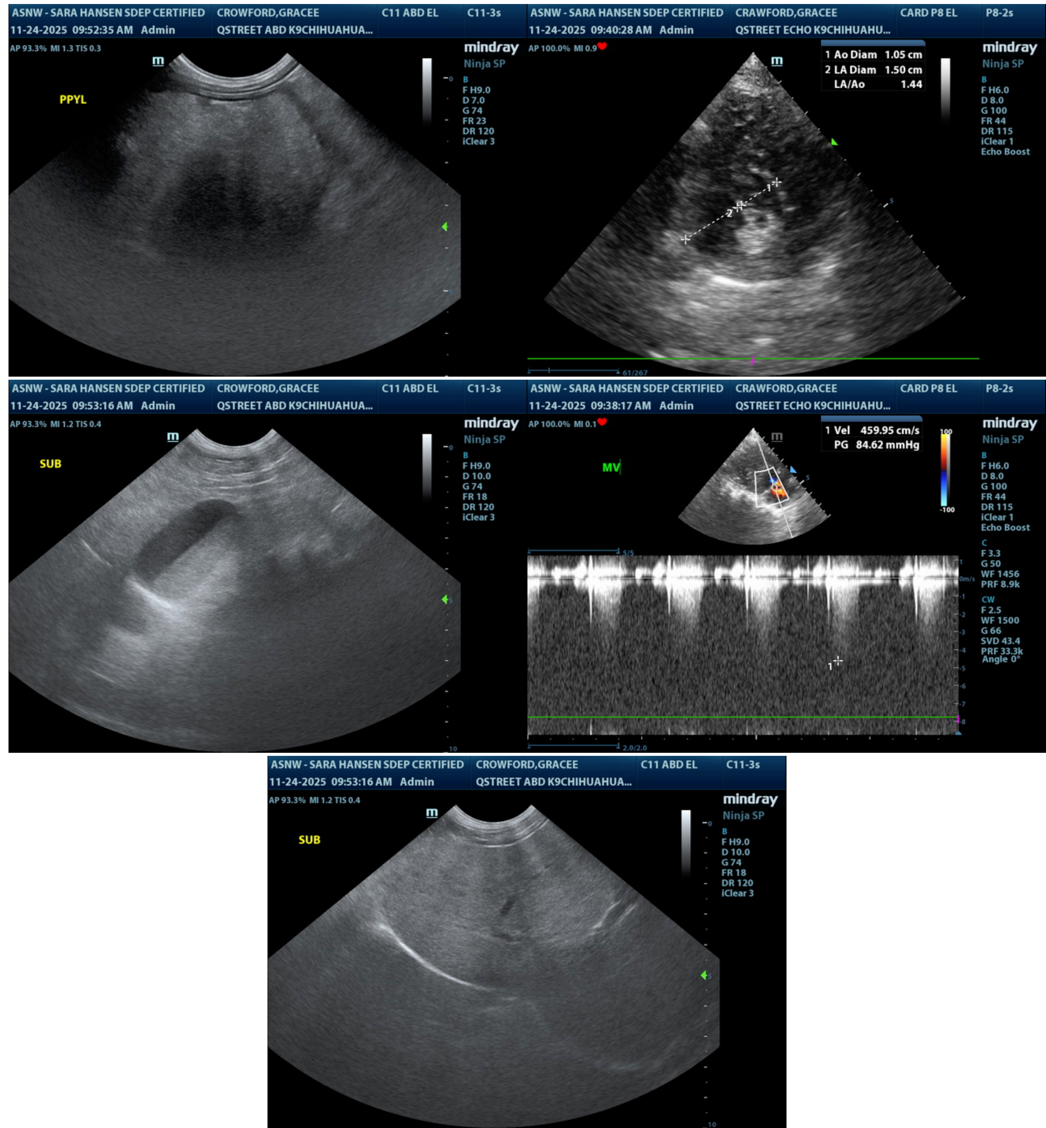

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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