



PATIENT PRESENTING CLINICAL SIGNS

Mojo Stoddard

History: lethargy, decreased appetite, weight loss. not on any meds.
Abnormal PE/Chem/CBC/UA Results: WBC 42,500 with neutrophilia (on 4/22 WBC was 13,000).
Previous hx (March/april) of elevated lymphocytes . Tick PCR neg. Alb low 2.5, glon 4.2, gluc 63, Ca low 8.8, platelets increased 442.

SPECIES

Canine

BREED

Mix

SEX

Neutered male

AGE

11 years

WEIGHT

9 lbs

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 was noted. Ureteral papillae were normal.

The prostate was uniform and measured 0.6 cm.

The **kidneys** revealed largely normal size and structure, corticomedullary definition and ratio (cortex 1/3 of medulla) were essentially maintained with some 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 this age patient. Medullary structure differed distinctly from that of the cortex and no evidence of pelvic dilation was present. The right kidney measured 4.96 cm. The left kidney measured 4.23 cm.

Adrenal Glands

The right **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 right adrenal gland measured 1.67 x 1.35 cm at the cranial pole and 0.56 cm at the caudal pole. The left adrenal gland was enlarged, irregular and mineralized. The left adrenal gland measured 1.83 x 0.88 cm at the caudal pole and 0.53 cm at the cranial pole.

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Diane McFadden, RVT

HOSPITAL NAME

Marsh Hospital for
Animals

REFERRING VET

Dr. Milwicki

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Spleen

The **spleen** revealed multi-focal coalescing, hypoechoic nodular changes.

Liver

The **liver** images from right and left intercostal as well as subcostal views revealed subjectively normal liver size, contour, and structure. Some age-related parenchymal remodeling was noted but likely not clinically significant at this time. Vascular and biliary tracts were of normal volume and no evidence of congestion was noted. The gallbladder presented some dependent debris with essentially normal contour. The cystic and common bile ducts were normal. No overt evidence of active inflammatory, infiltrative or regenerative pathology was noted but should be paired with current or past LE elevations regarding any clinical significance to this presentation. The hepatic lymph nodes were unremarkable.



PATIENT *Gastrointestinal*

Mojo Stoddard 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

Canine

Pancreas

BREED

Mix

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.

SEX

Neutered male

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

AGE

11 years

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 separate methods of LA evaluation. The cranial and caudal **mitral** valve leaflets presented normal linear structure, extension in systole, and union in diastole with normal kinesis. The **left ventricle** presented 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 of the myocardium. The **left ventricular outflow** tract demonstrated normal laminar flow and subjective structural integrity. The **tricuspid** valve was unremarkable. **Right ventricular** free wall and **right atrium** revealed minor heterogenous tissue thickening. This may be a normal variant; however, given the splenic presentation I am concerned for emerging hemangiosarcoma in this region. This region measured 1.5 x 0.8 cm. This should be monitored with follow-up in a week. **Pulmonary outflow** 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.

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CANINE	MR	TR	LA/AO	LA/AO	FS	EF	EPSS
CARDIAC PARAMETERS	VMAX (m/s)	VMAX (m/s)	(Boon method)	(Heart Base; Swe)	(%)	(%)	(cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.3	28-40	40-100	<0.6
PATIENT			NM	1.13	39	72	NM
CANINE	HR	AV	PV	BODY WEIGHT	LA	LVIDd	LVIDs
CARDIAC PARAMETERS	(BPM)	VMAX (m/s)	MAX (m/s)		2D short axis Base view (cm)	Avg; 2D and m-mode short axis (cm)	Avg; 2D and m-mode short axis (cm)
NORMAL PARAMETER	50-100	0.7-1.7	0.7-1.6				
PATIENT	132	1.0	0.6	9 lbs	1.83 max		



PATIENT **ULTRASONOGRAPHIC FINDINGS**

Mojo Stoddard

Minor heterogenous tissue thickening in the right ventricular free wall and right atrium. May be a normal variant, but given the splenic presentation I am concerned for emerging hemangiosarcoma in this region.

SPECIES

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Otherwise, normal echocardiogram, no evidence of clinical disease.

BREED

Mix

Splenic nodular changes, round cell neoplasia, emerging hemangiosarcoma and splenitis are all possible.

SEX

Neutered male

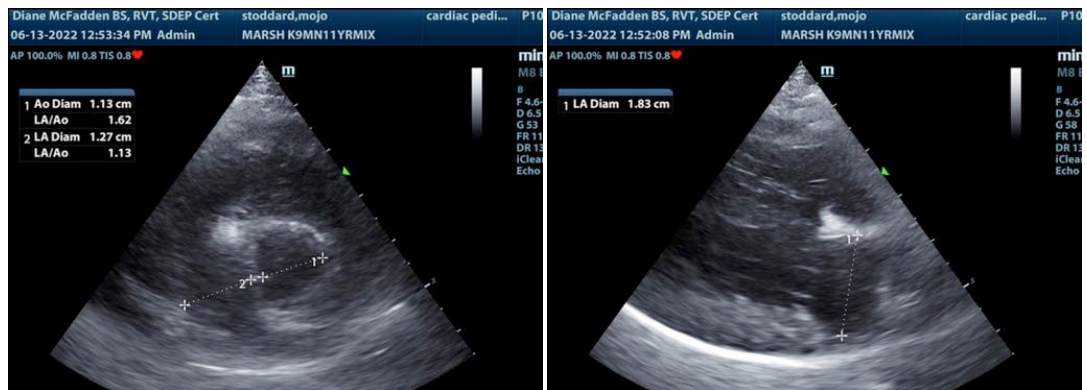
Minor, irregular adrenal glands, likely benign.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Splenic FNA is warranted or direct splenectomy. However, there is a mild potential for concurrent cardiac involvement. Both of the changes in the spleen and right auricle may be completely benign and unrelated. Given the CBC history path review is warranted +/- bone marrow aspirate. Another option is direct splenectomy and bone marrow biopsy or aspirate at that time.

WEIGHT

9 lbs



INTERPRETED BY

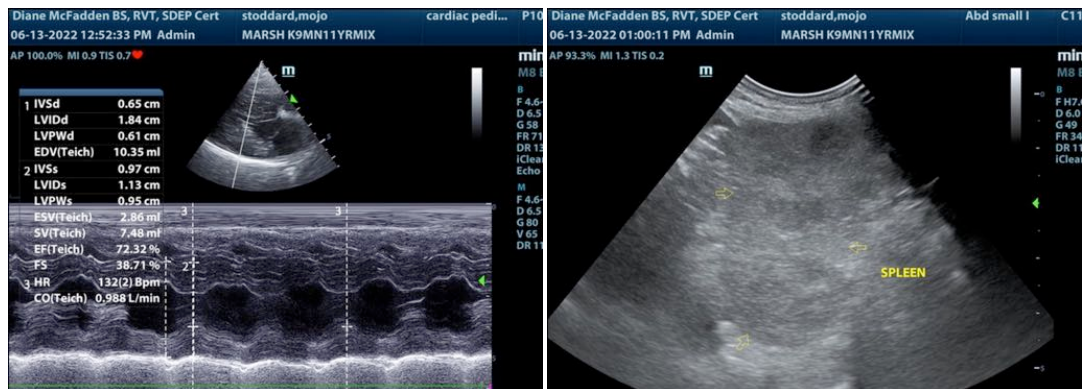
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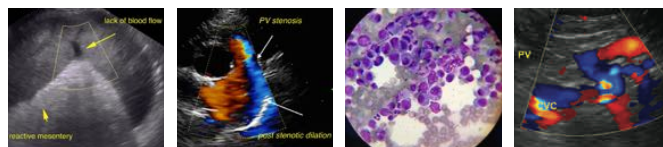
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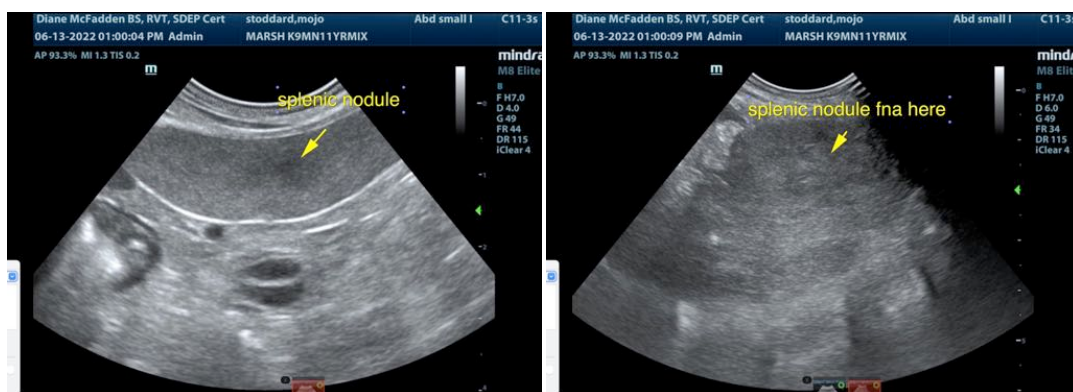
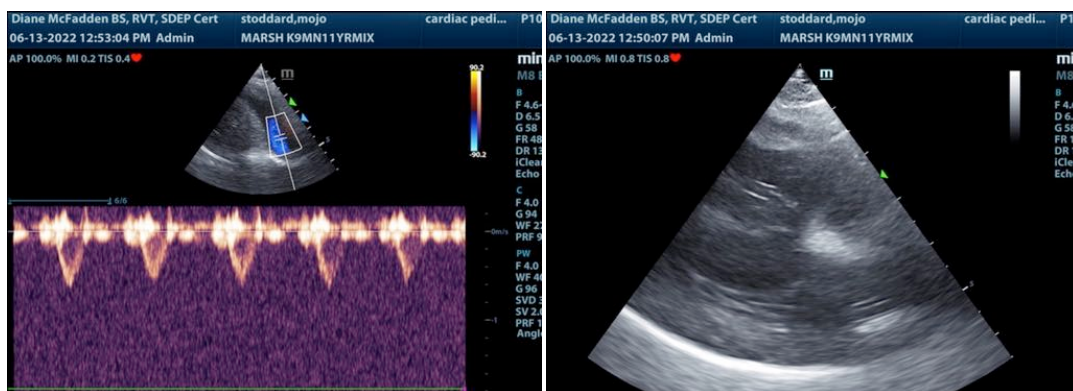
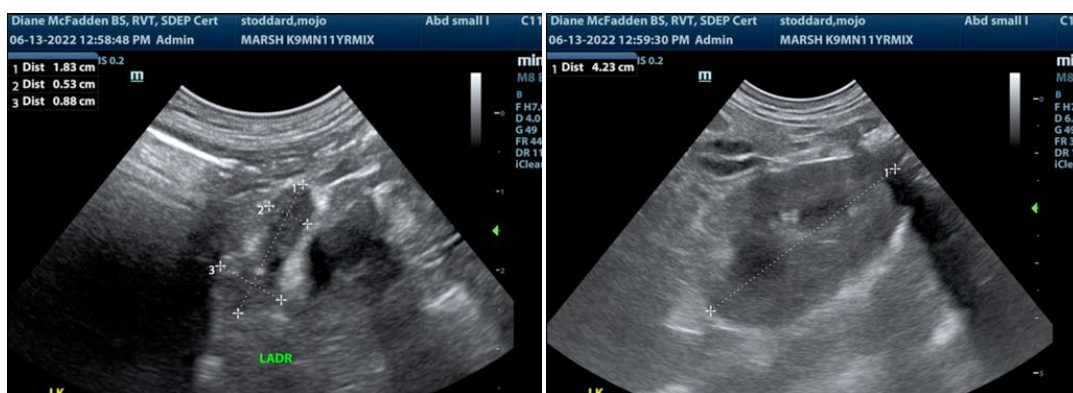
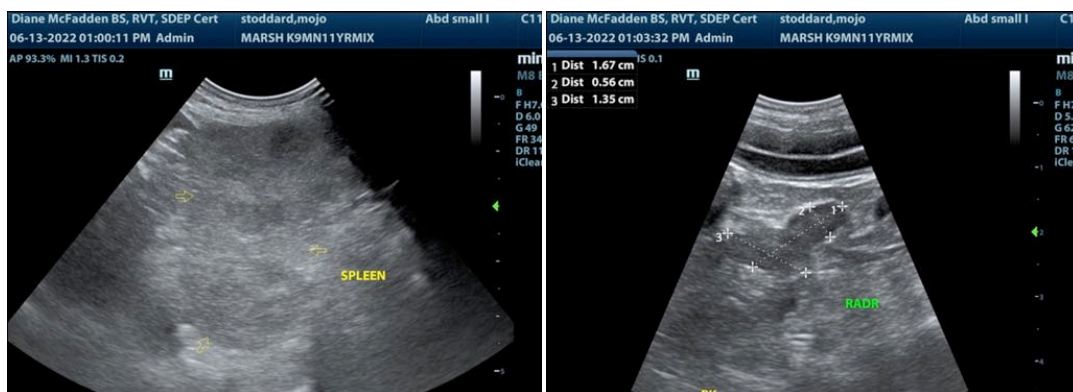
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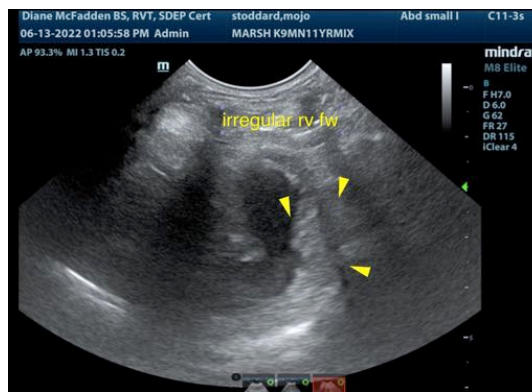
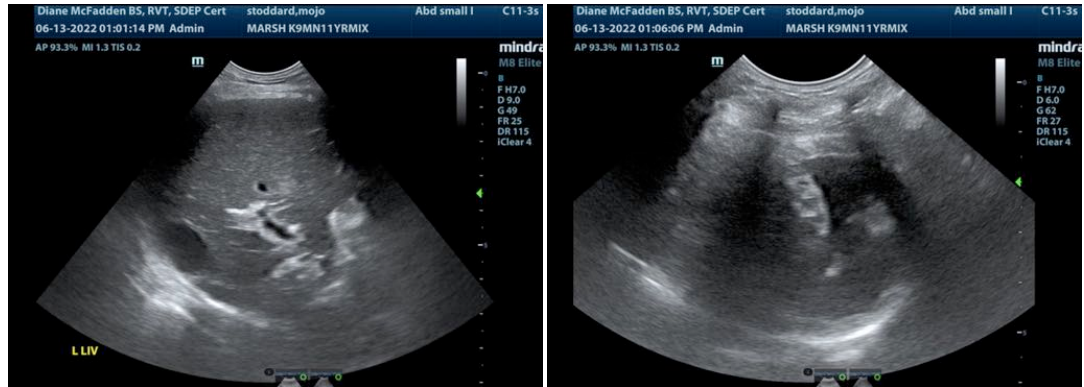
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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