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Clinical Sonography & Telecytology
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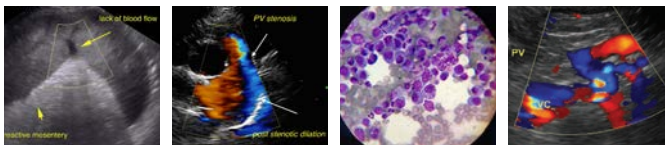

SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Phantom Abbatemarco

SPECIES

Feline

BREED

DSH

SEX

Spayed Female

AGE

14 Years

WEIGHT

13.4 Pounds

INTERPRETED BY

Eric Lindquist, DMV DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Kelly Vazquez

HOSPITAL NAME

Westwood Regional

REFERRING VET

Dr. Hartwick

INVOICE

33881

DATE

12/31/21

PRESENTING CLINICAL SIGNS

History of hypertrophic obstructive/mild to moderate MV regurg, HCM, diagnosed Nov. 2016 - noted pulmonary lesions R middle lung area on rads 12/30/21, checking HCM and assess lesions, grade 2/6 heart murmur. History of non-specific hepatopathy (had FNA of liver) - suspect inflammatory since 2018 - liver enzyme responsive to steroids until recently. Climbing, with more frequent episodes of decreased appetite and vomiting. History of constipation - controlled on lactulose, famotadine; restarted Cerenia, Denamarin, Prednisolone 5mgs PO SID, just added chlorabucil 2mgs q 4 hrs 2 week ago, on buprenorphine. PE on 12/31/21: distended abdomen, slightly uncomfortable. Rads - some stool in colon, not constipated.
Abnormal PE/Chem/CBC/UA Results: 9/26/21: Chem: ALT 406, AST 156, Alk Phos. normal. 10/20/21: Chem: ALT 448, AST 156, Alk.Phos. 114. After 2 weeks on Leukeran - 12/27/21: Chem: ALT 556, Alk. Phos. 135, GGT 6, BUN 19, creat. 1.4, CBC: WNL.

ULTRASONOGRAPHIC EXAMINATION OF THE 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		129	0.59	1.31	0.59	35	069
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	1.3	1.0			1.01	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 myocardial remodeling and sectorial hypertrophy, not clinically significant. **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. Trivial **tricuspid** insufficiency noted, not clinically significant. 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. A large amount of thoracic fat noted in this patient.

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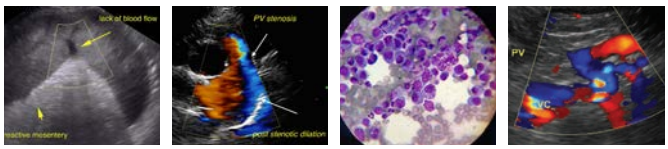

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Urinary System

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 were noted. Ureteral papillae were normal.

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 his age patient. Medullary structure differed distinctly from that of the cortex and no evidence of pelvic dilation was present. The right kidney measured 4.05 cm. The left kidney measured 4.04 cm.

Adrenal Glands

The regions of the **adrenal glands** were unremarkable.

Spleen

The **spleen** in this patient was uniform, yet volume contracted. Hydration status should be assessed.

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. Duplicated gallbladder noted, normal variant.

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. The colon was filled with fairly hard stool.

Pancreas

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.

ULTRASONOGRAPHIC FINDINGS

- Sectorial hypertrophic cardiomyopathy with myocardial remodeling
- Minor mitral and tricuspid insufficiencies
- Chronic inflammatory hepatopathy likely
- Structurally unremarkable abdomen with fairly hard stool in colon

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Structurally normal function, non-clinical cardiac presentation. Assessment for obstipation recommended based on radiographic findings. FNA of the liver could be considered for further definition. No evidence of neoplasia.

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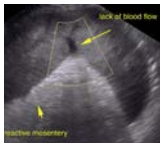
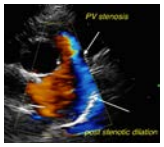
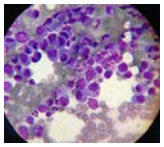
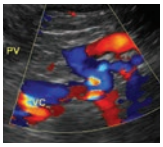

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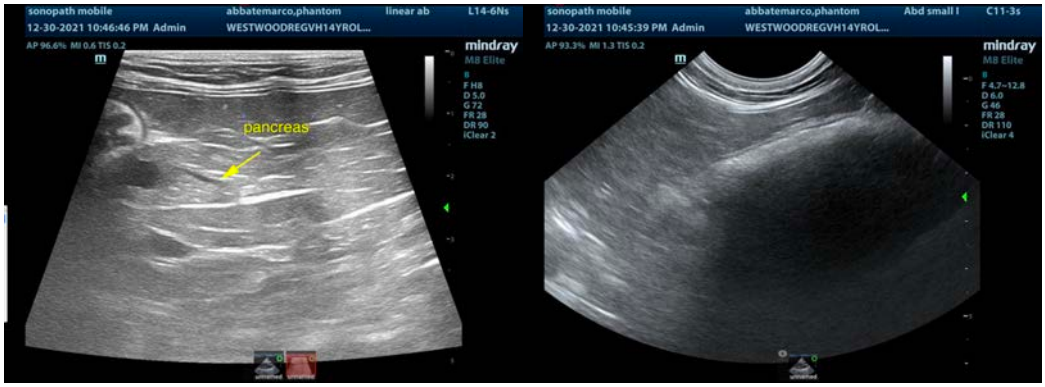

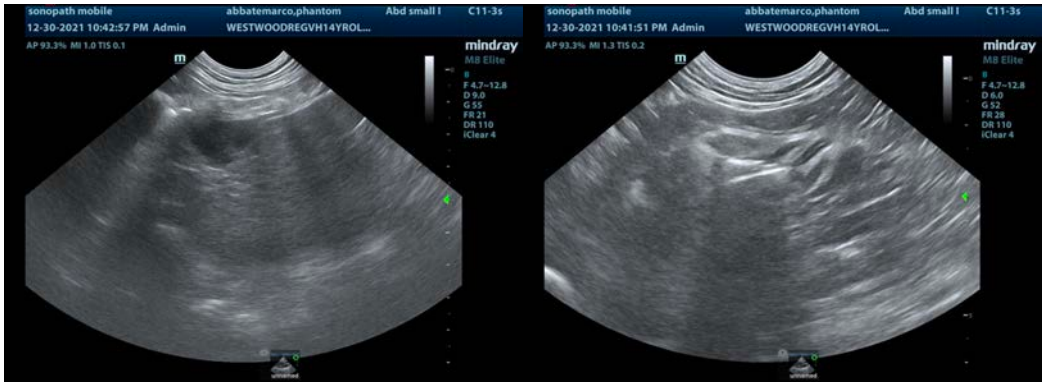

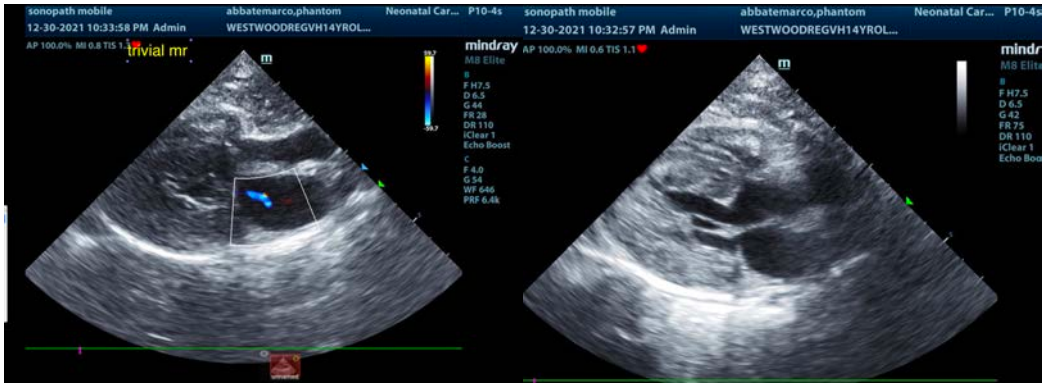

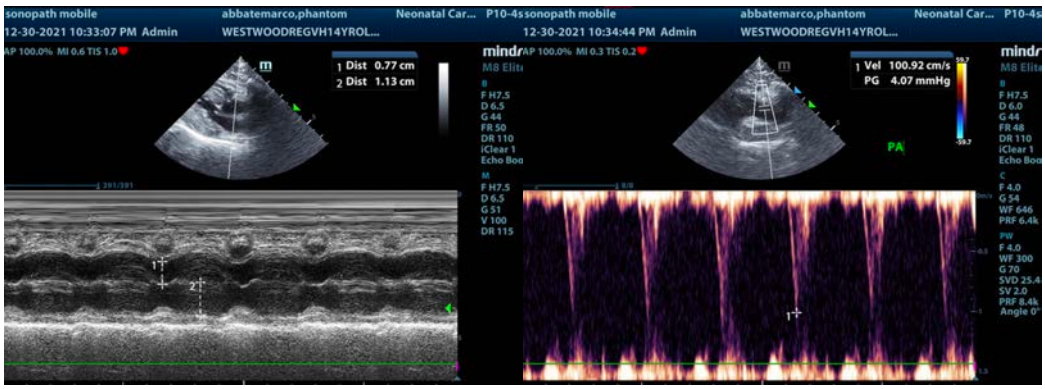

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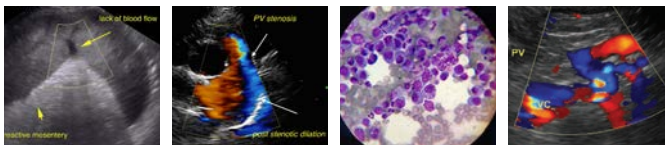

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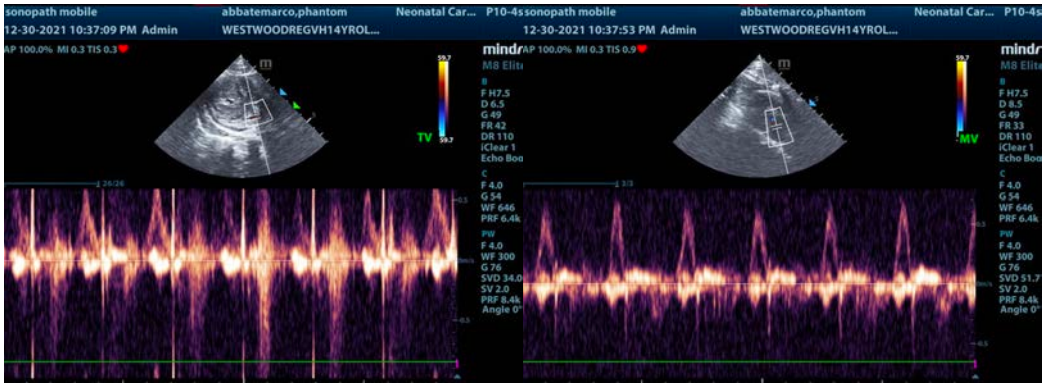

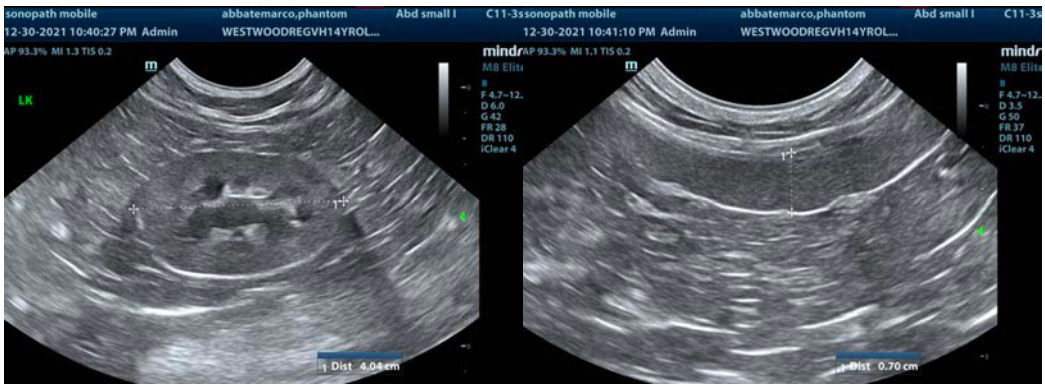

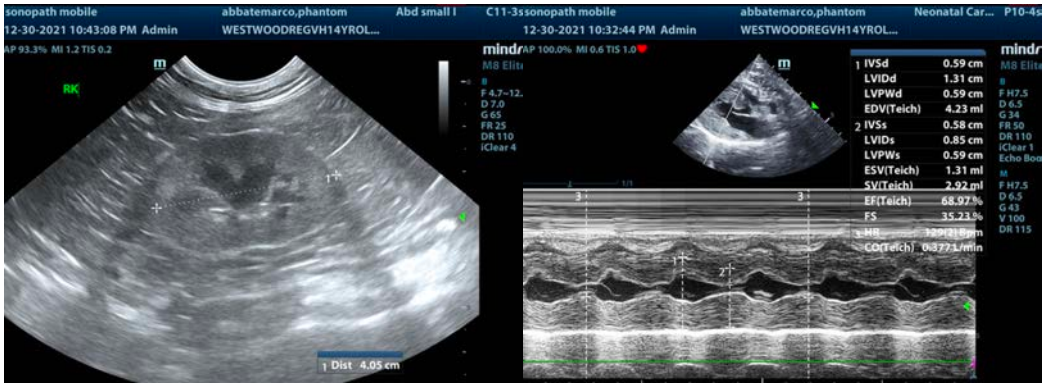

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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