



PATIENT

Coco Heimpel

SPECIES

Canine

BREED

Boxer X

SEX

FS

AGE

10Y

WEIGHT

22.7kg

INTERPRETED BY

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

IMAGING PERFORMED BY

Amanda Stewart

HOSPITAL NAME

Buck AH

REFERRING VET

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5-27-26

PRESENTING CLINICAL SIGNS

Findings:

- regurgitation for years, now blood tinged, occurring when moving
- possible thymoma on x-ray
- worried about ulcers from medication

Current Medications

Omeprazole, Galliprant

Abnormal PE/Chem/CBC/UA Results: ALKP 265 Radiographic Findings mass effect, possible thymoma Primary Question to Be Answered in This Exam Abdominal and mediastinum ulcers, thymoma, cancer, etc Rads attached

ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN

| CANINE CARDIAC PARAMETERS | MR VMAX (m/s) | TR VMAX (m/s) | LA/AO (M-mode) | LA/AO (Heart Base; Swe) | FS (%) | EF (%) | EPSS (cm) |
|---------------------------|---------------|---------------|----------------|-------------------------|----------------------|--|--|
| NORMAL PARAMETER | 4.5-5.5 | <2.7 | 1.3 | Up to 1.6 | 28-40 | 40-100 | <0.6 |
| PATIENT | | | NM | 1.4 | 38 | 70 | 0.35 |
| CANINE CARDIAC PARAMETERS | HR (BPM) | AV VMAX (m/s) | PV MAX (m/s) | BODY WEIGHT (kg) | LAD LA MAX 4 Chamber | LVIDd Avg; 2D and m-mode short axis (cm) | LVIDs Avg; 2D and m-mode short axis (cm) |
| NORMAL PARAMETER | 50-100 | 0.7-1.7 | 0.7-1.6 | | | | |
| PATIENT | 116 | 1.9 | 0.91 | 22.7 | 3.6 | 3.5 | |

Cardiac Presentation

The echocardiogram in this patient demonstrated normal **left atrial** size based on 2 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 **right atrium** and auricle revealed normal size, structure and content. No evidence of masses was noted. **Tricuspid** valvular assessment demonstrated adequate linear morphology and kinesis. The **right ventricle** was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. **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. The cranial **mediastinum and pericardial and extra-cardiac regions** were free of overt masses in the visible window with left and right normal aerated lung exhibiting A-lines.



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Urinary System

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The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. The ureteral papillae were normal. The ureters were not visible, which is normal. No evidence of inflammatory or neoplastic changes were noted.

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No evidence of pathology in the area of the aortic trifurcation.

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Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio and normal corticomedullary definition were maintained. The echogenicity of the cortex was similar to or slightly less than normal liver parenchyma while the medulla echogenicity was hypoechoic to the cortex with no evidence of pelvic dilation. The left kidney measured 6.0 cm in length. The right kidney measured 6.4 cm in length.

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Adrenal Glands

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The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.7 cm width at the caudal pole. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.61 cm width at the caudal pole.

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Spleen

The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Acute to chronic inflammatory, neoplastic, or benign parenchyma changes were not noted.

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Liver/ Gallbladder

The liver was subjectively normal in size, structure, and contour. Normal hepatic vascular volume was present. The liver parenchyma was uniform and hypoechoic to the spleen with a mild coarse echotexture. The hepatic and portal vasculature were normal in appearance without signs of congestion.

The gallbladder was non-distended in size with thin walls and mild gallbladder debris. The cystic and common bile ducts were normal.

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Gastrointestinal

The stomach presented normal intact visible wall. The stomach was nondistended containing a mild amount of shadowing content. No obstruction to the pyloric outflow. The pylorus wall measured 0.40 cm.

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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. The duodenum wall measured 0.50 cm. The jejunum wall measured 0.40 cm.

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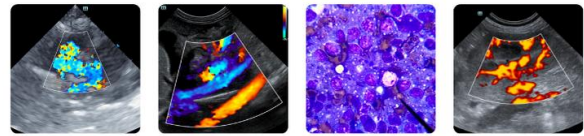
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Normal visible colon wall layers were present with formed feces in lumen.

Pancreas

The area of the pancreas was normal.

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Free Abdomen

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No overt lymphadenopathy or peritoneal effusion was present.

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ULTRASONOGRAPHIC FINDINGS

- Normal echocardiogram.
- Pericardial and cranial mediastinal normal aerated lung.
- Sonographically unremarkable gastrointestinal tract with mild shadowing gastric content.
- Sonographically normal liver – consistent with mild benign hepatopathy.
- Mild gallbladder debris (nonmucocele).
- Normal area of the pancreas.
- Normal bilateral adrenal glands.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

A definitive cause of the chronic regurgitation was not visible or obvious. No overt evidence of mediastinal pathology or tumors although surrounding aerated lung prohibited full evaluation of the entire mediastinal area.

The shadowing gastric content is nonspecific and may indicate retained dense ingesta, medication such as gastroprotectants, while a small amount of gastric foreign material not definitively excluded. Correlation with the most recent meal ingestion recommended. Non visualized esophageal or gastroesophageal junction pathology not definitively excluded. Screening cortisol level to rule out occult Addison’s disease suggested. Ideally, upper gastrointestinal endoscopy for further assessment of the esophagus and gastric interior with potential for biopsies recommended, if possible.

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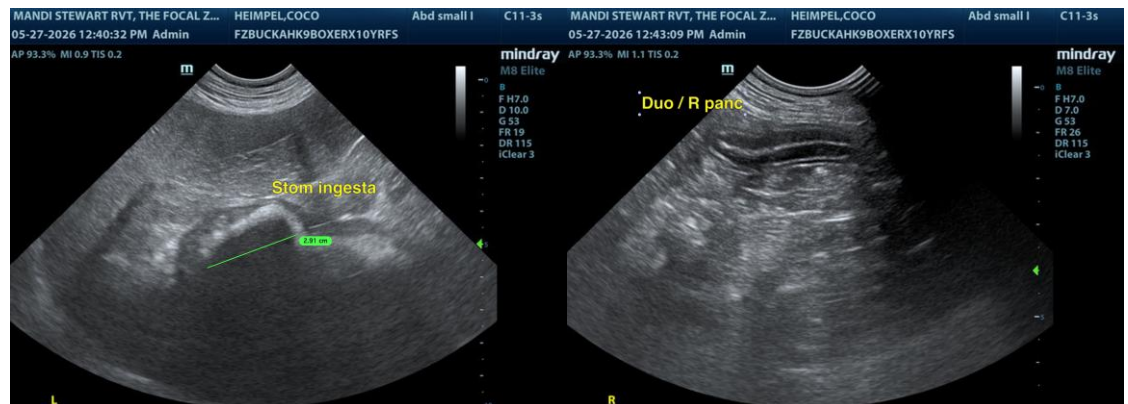
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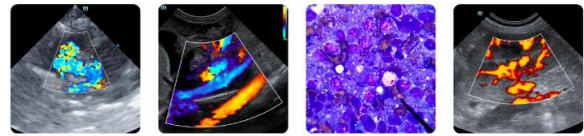
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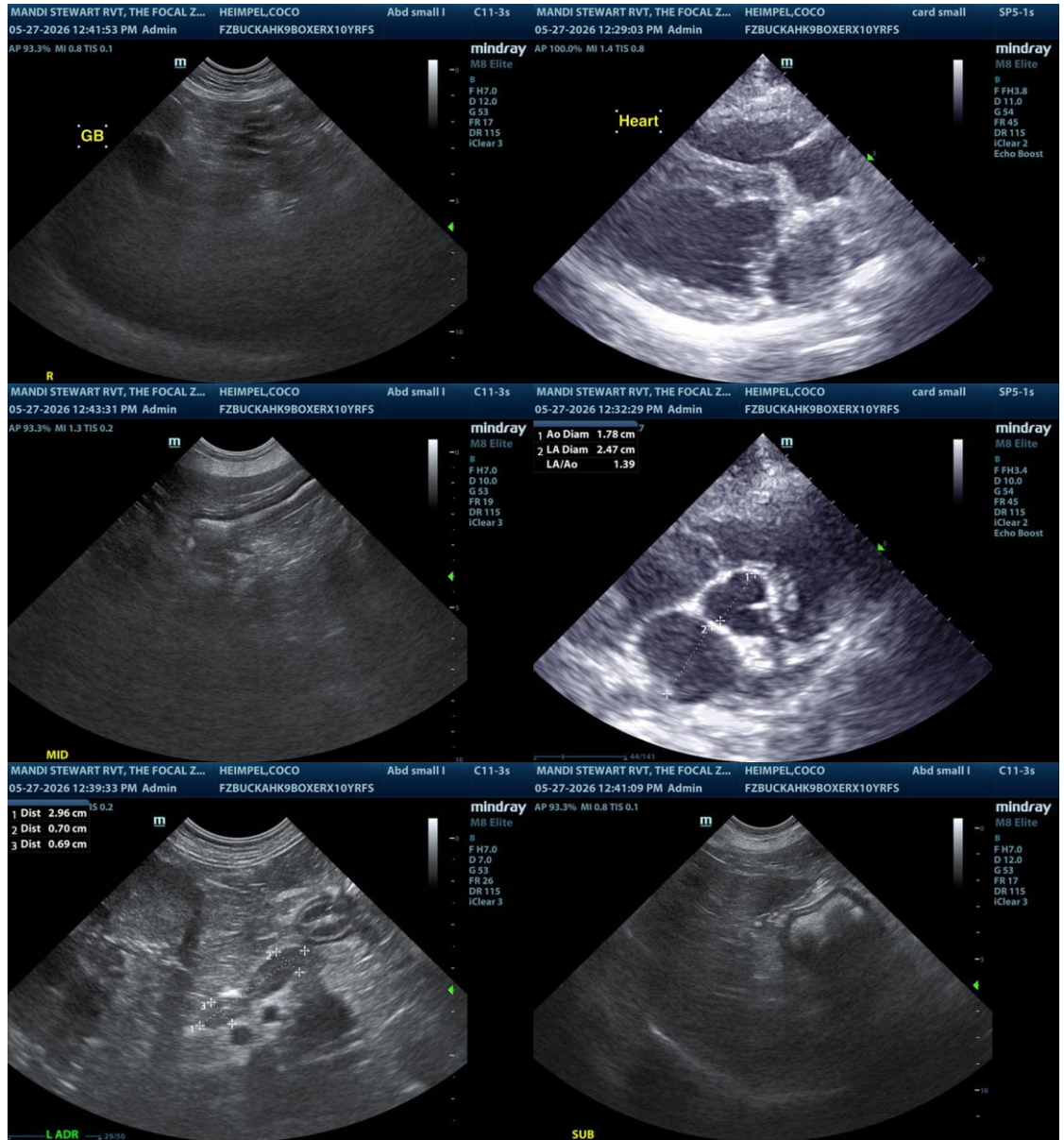
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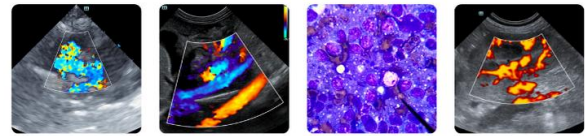
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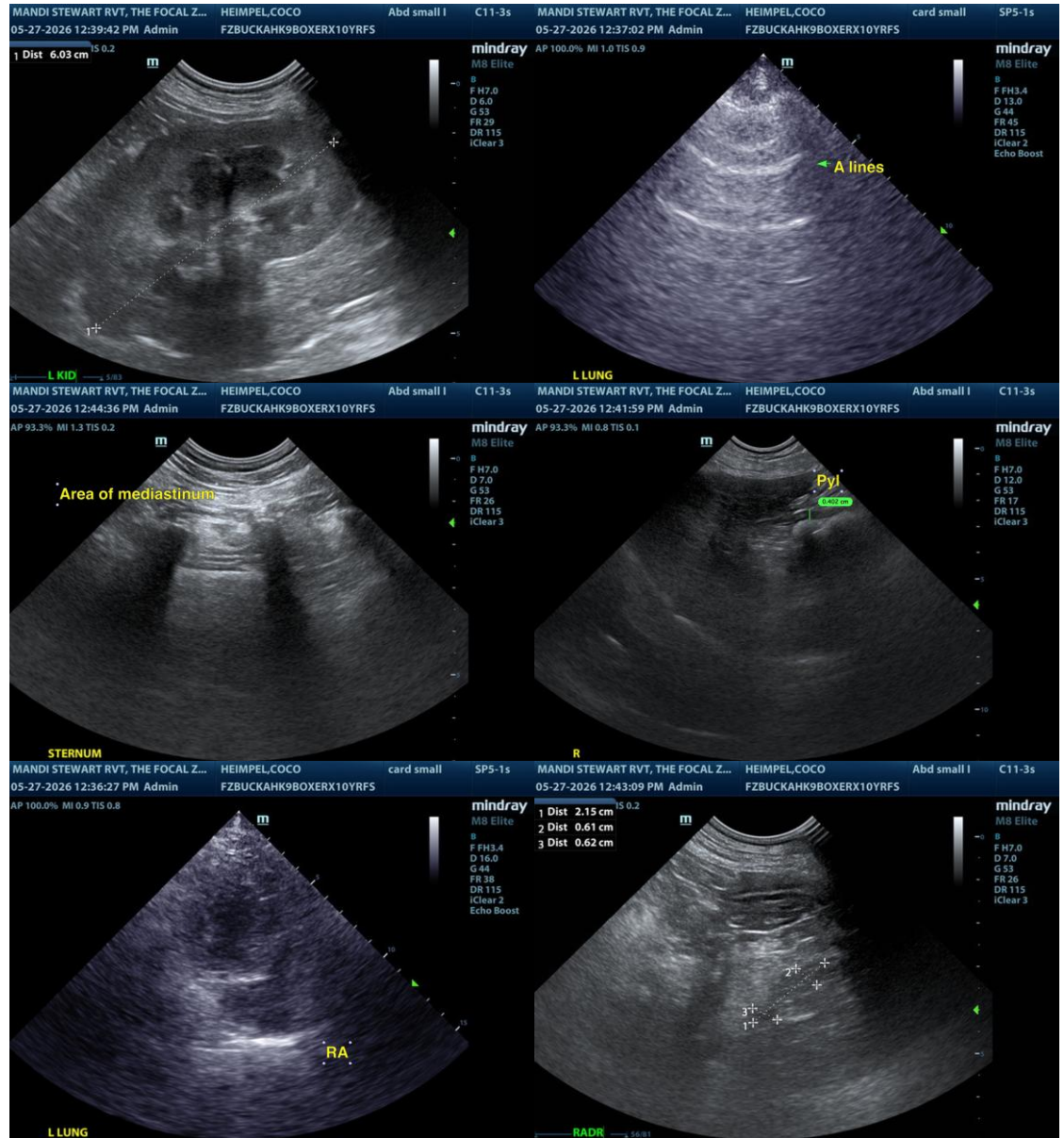
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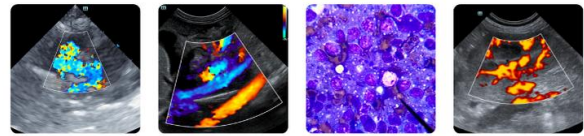
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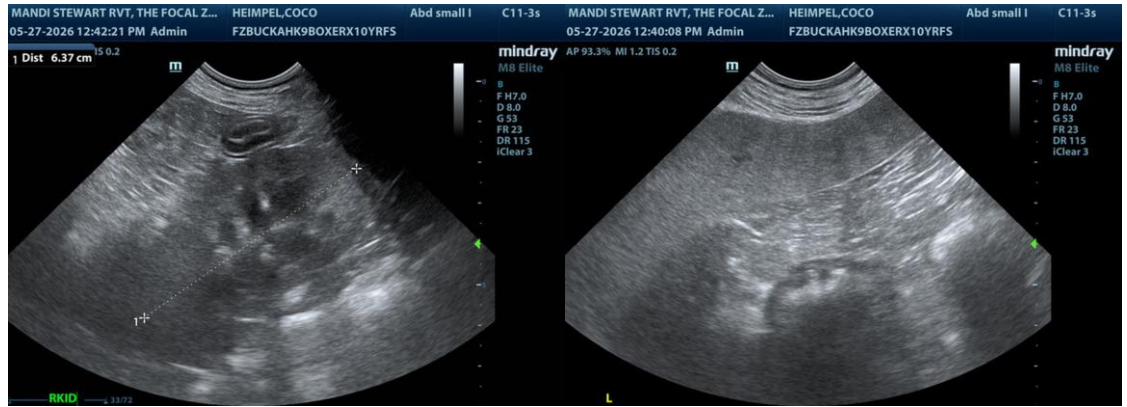
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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