


PATIENT PRESENTING CLINICAL SIGNS

Billy Bertalan Decreased appetite, lethargic, hx of urinary calculi and IVDD. Current meds: Metronidazole, Unasyn, Denamarin.
 Abnormal PE/Chem/CBC/UA Results: ALT 206, ALP 972, GGT 18, BUN 35, Neuts 15.51, USG 1.050

SPECIES

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN
BREED

Pekingese

SEX

Neutered Male

AGE

7 Years

WEIGHT

17.5 Pounds

CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (Boon method)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.6	28-40	40-100	<0.6
PATIENT	5.0	2.24	1.21	1.2	37	68	NM
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT (kg)	LA 2D short axis Base view (cm)	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	109	1.0	0.97		3.0	2.78	

INTERPRETED BY

 Eric Lindquist, DMV
 DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Shari Reffi, CVT

HOSPITAL NAME

Newton Vet Hospital

REFERRING VET

Dr. Chabora

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Cardiac Presentation

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 different LA measurement methods. Chamber volumes and echogenicity were normal. The cranial and caudal **mitral** valve leaflets presented vegetative thickening consistent with endocardiosis. Doppler indicated measurable insufficiency. Centralized jet noted, fairly mild regurgitant fraction. 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 or chamber overload. Minor **tricuspid** insufficiency noted. 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. No echographically detectable evidence of infiltrative disease was visible. The cranial **mediastinum** and **pericardial** regions were free of masses in the visible window.

Urinary System

The **urinary bladder** revealed a mild amount of sand accumulation and concentric thickening with polypoid changes, non-obstructive.

The prostate was mildly enlarged, slightly irregular, focally mineralizing, measuring 1.5 cm in width. Strong concern for prostatic carcinoma.



PATIENT

Billy Bertalan

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. Minor mineralization noted. The right kidney measured 4.42 cm. The left kidney measured 3.87 cm with a 0.5 cm non-obstructive calculus in the left renal pelvis.

SPECIES

Canine

Adrenal Glands

BREED

Pekingese

Both **adrenal glands** were 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 2.32 cm x 1.22 cm at the cranial pole and 0.5 cm at the caudal pole. The left adrenal gland measured 1.8 cm x 0.55 cm at the cranial pole and 0.52 cm at the caudal pole.

SEX

Neutered Male

Spleen

The **spleen** presented multifocal hyperechoic nodules throughout with deviated architecture.

AGE

7 Years

Liver

The **liver** revealed an expansive mixed echogenic, undifferentiated 5.35 cm mass in the left liver with separate 4.6 cm and 3.1 cm masses in the right liver. The gallbladder presented calculi.

WEIGHT

17.5 Pounds

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. 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.

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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.

IMAGING PERFORMED BY

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ULTRASONOGRAPHIC FINDINGS

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- Stage B1 valvular disease
- Prostatic mineralization
- Bladder sand, chronic cystitis pattern
- Renal calculi, non-obstructive
- Splenic nodules
- Hepatic masses and gallbladder calculi

REFERRING VET

Dr. Chabora

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Assessment of BUN, creatinine, USG, chest radiographs and blood pressure as well as clinical exam ideal in 7-10 days. Basal respiratory rate should be <20/min. Strong concern for prostatic carcinoma. Ultrasound guided FNA of the prostate recommend with some potential for trailing. FNA of the splenic nodules and liver masses also strongly recommended. Traumatic catheterization could be performed upon the prostate. The pathologies are likely unrelated. However, all are significant. The hepatic masses do not appear resectable. Prognosis is poor long-term depending upon cytology results.

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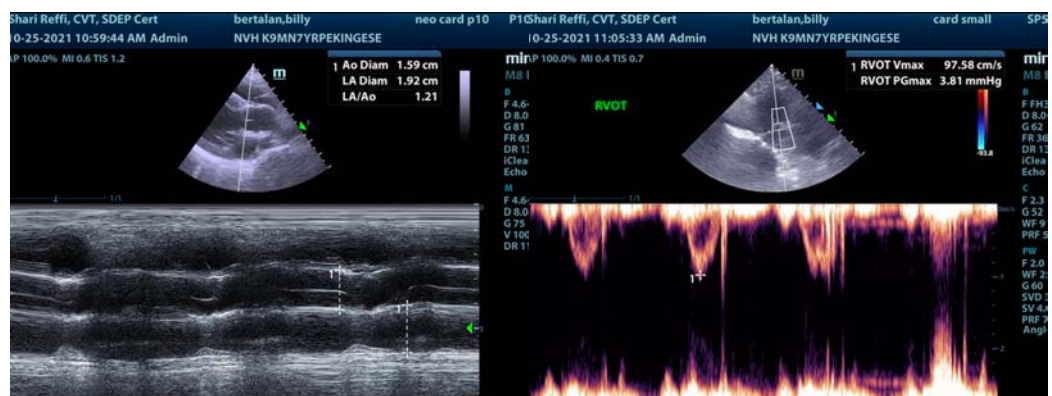
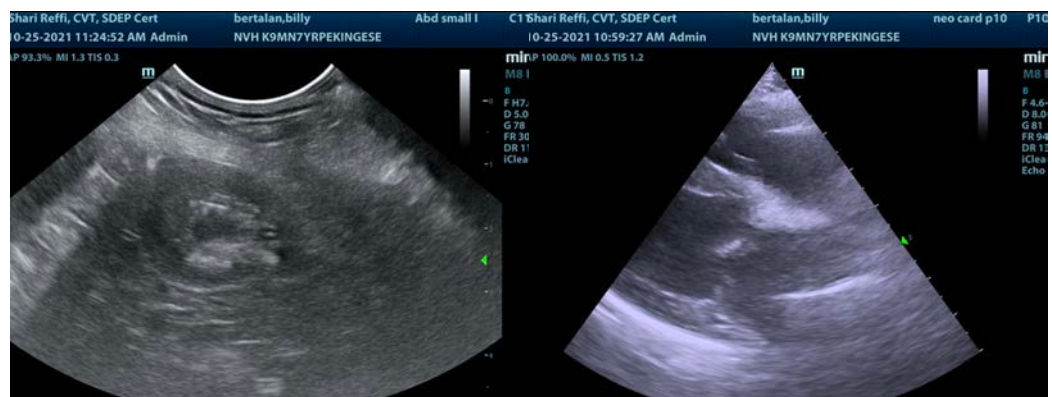
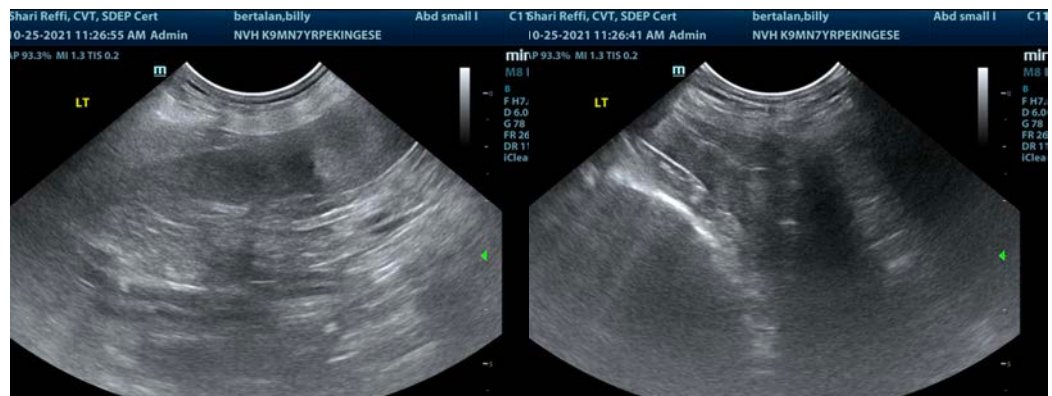
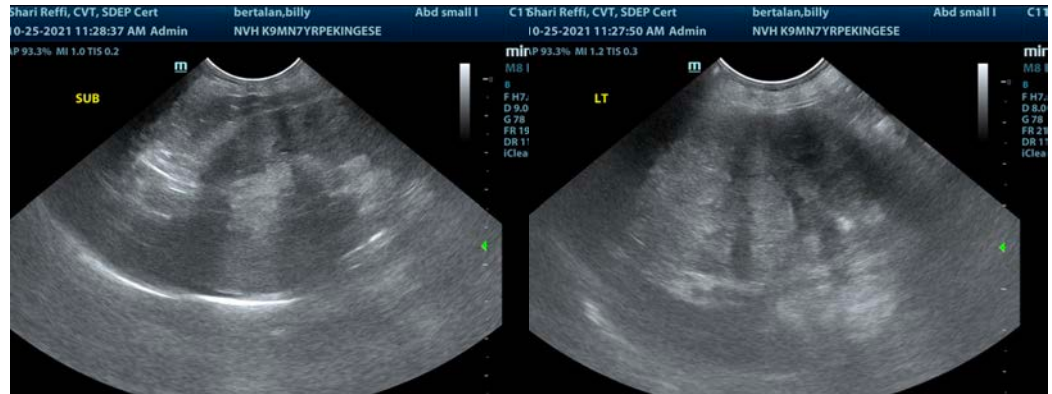
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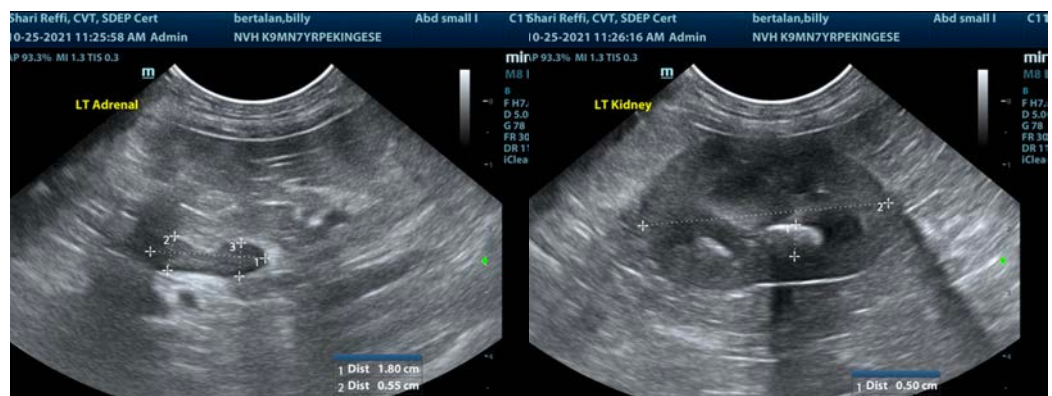
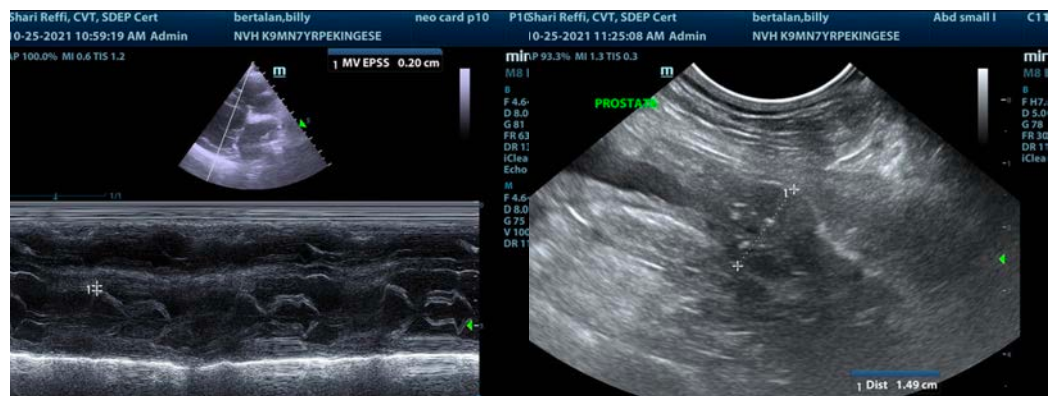
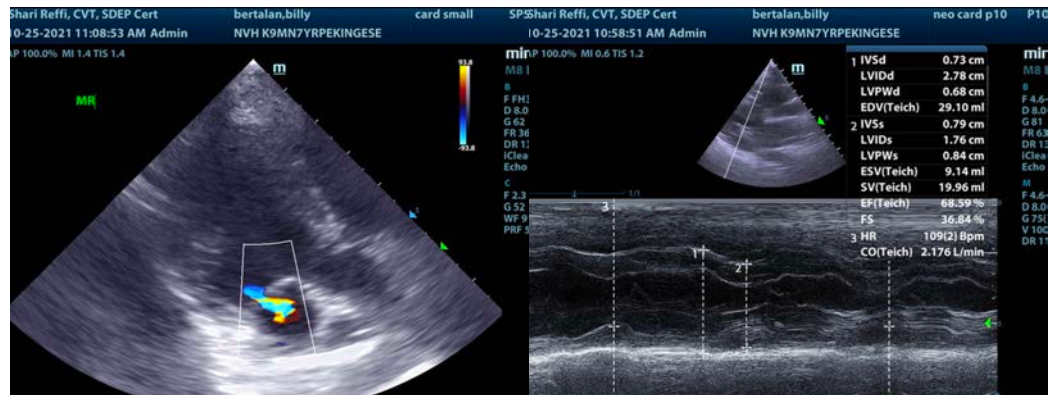
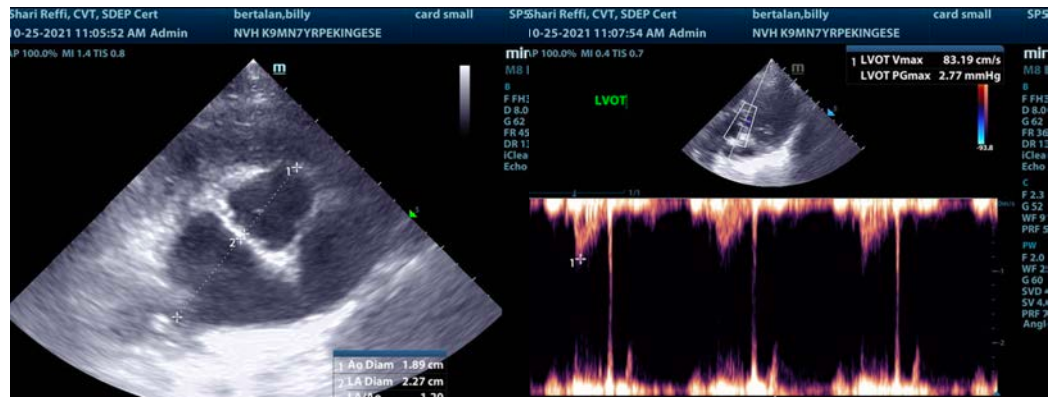
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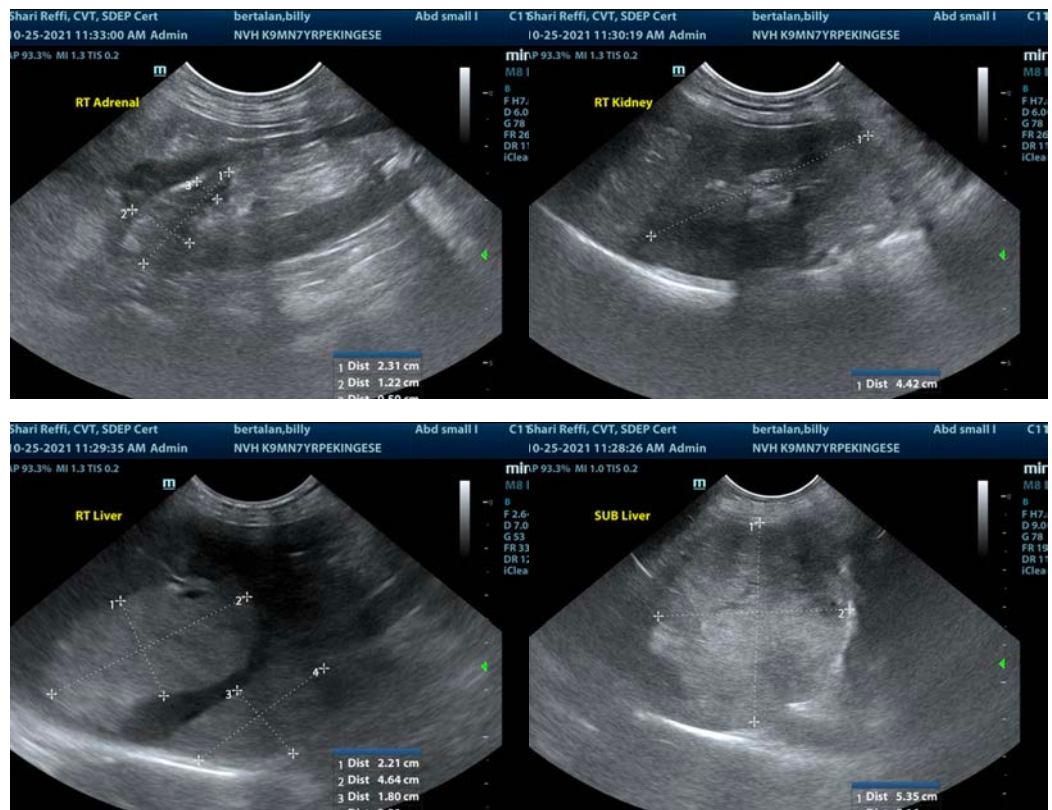
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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