PATIENT

Loki Franco

SPECIES

Canine

BREED

Mix

SEX

Neutered Male

AGE

12 Years

WEIGHT

76 Pounds

INTERPRETED BY

Eric Lindquist, DMV, DABVP (Canine & Feline), Cert. IVUSS

IMAGING PERFORMED BY

Chloe Lowe, CVT

HOSPITAL NAME

William Penn VH

REFERRING VET

Dr. Mahmoud

INVOICE

36652

DATE

4/20/26

PRESENTING CLINICAL SIGNS

History: Elevated liver, pancreas, and adrenal glands. Enlarged heart. Gabapentin 600 mg one tablet three times a day.

Abnormal PE/Chem/CBC/UA Results: ALT 181, ALP 322, Cholesterol 413, lipase 4.757, basophils 0.15

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	--	--	1.3	1.43	33	61	0.2
CANINE CARDIAC PARAMETERS	**HR** (BPM)	**AV VMAX** (m/s)	**PV MAX** (m/s)	**BODY WEIGHT** (lbs)	**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	--	1.50	.50	76 lbs	4.4	4.8	--

Cardiac Presentation

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 **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 masses in the visible window.

Urinary System

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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 pelvic urethra was imaged 2.0 cm beyond the cystourethral junction. The residual prostate measured 1.4 cm.

The **kidneys** revealed largely normal size and structure, corticomedullary definition and ratio (cortex 1/3 of medulla) were essentially maintained with some mild 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 7.1 cm. The left kidney measured 7.3 cm.

Adrenal Glands

The **right adrenal gland** was irregular and nodular with areas of capsular expansion. The right adrenal gland measured 3.53 cm x 1.25 cm at the cranial pole and 0.92 cm at the caudal pole.

The **left adrenal gland** was mildly enlarged and slightly irregular. The left adrenal gland measured 1.08 cm at the caudal pole and 0.58 cm at the cranial pole x 2.8 cm in length.

Spleen

The **spleen** revealed a focal heterogenous mass (2.75 cm) with capsular expansion. No cavitation was noted.

Liver

The **liver** presented coarse architecture and heterogenous parenchymal changes, most consistent with nodular hyperplasia. No overt evidence of metastatic disease yet cannot be ruled out. The gallbladder and common bile duct were unremarkable.

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.

Pancreas

The **pancreas** was heterogenous with hypoechoic nodular changes noted in the left limb, a region of approximately 9.0 cm.

ULTRASONOGRAPHIC FINDINGS

- Focal splenic mass, stable- concern for hemangiosarcoma. Benign hyperplasia and round cell neoplasia are possible yet less likely.
- Nodular hepatic changes

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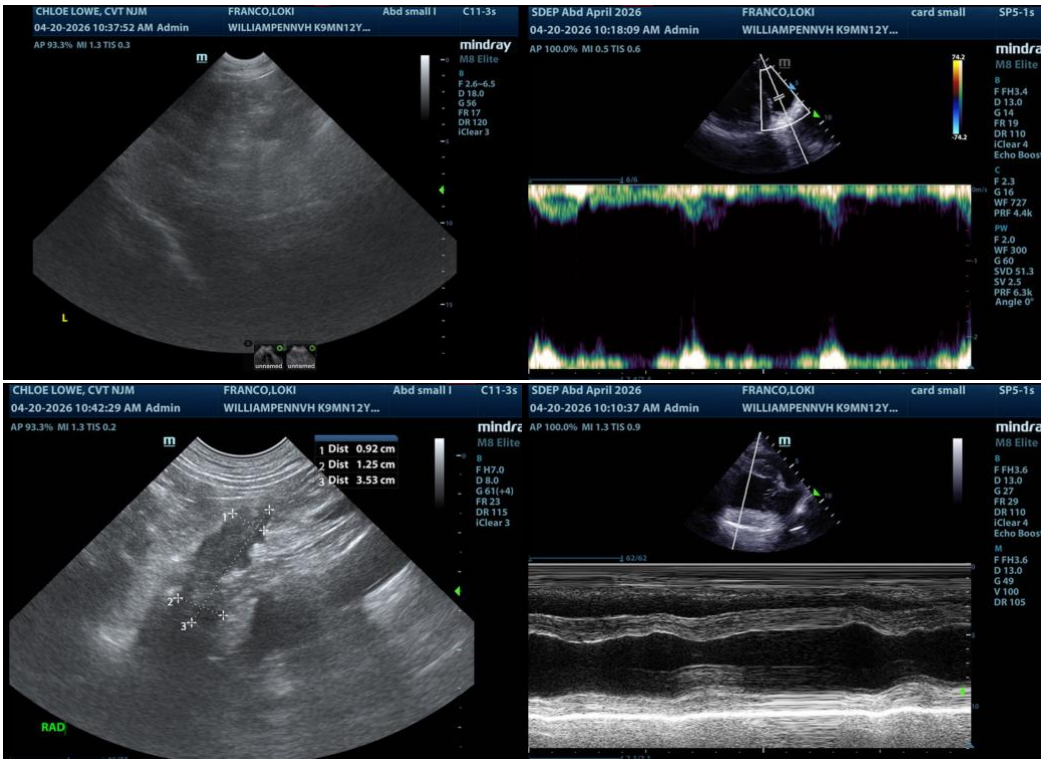
- Concerning irregularity to the right adrenal gland- differentials include hyperplasia, carcinoma, pheochromocytoma.
- Focal swelling of the left adrenal gland – likely hyperplasia or adenoma
- Undefined nodular pancreatic changes – nodular hyperplasia is likely. Emerging carcinoma is possible.
- Normal echocardiogram
- Age-related renal changes

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Concern for primary splenic pathology is warranted. Chest radiographs followed by splenectomy, right adrenalectomy, pancreatic inspection and biopsy, and liver biopsy would all be appropriate in this patient.



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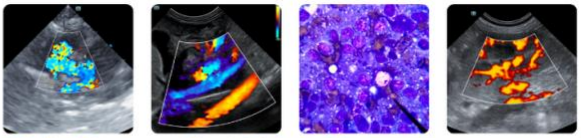

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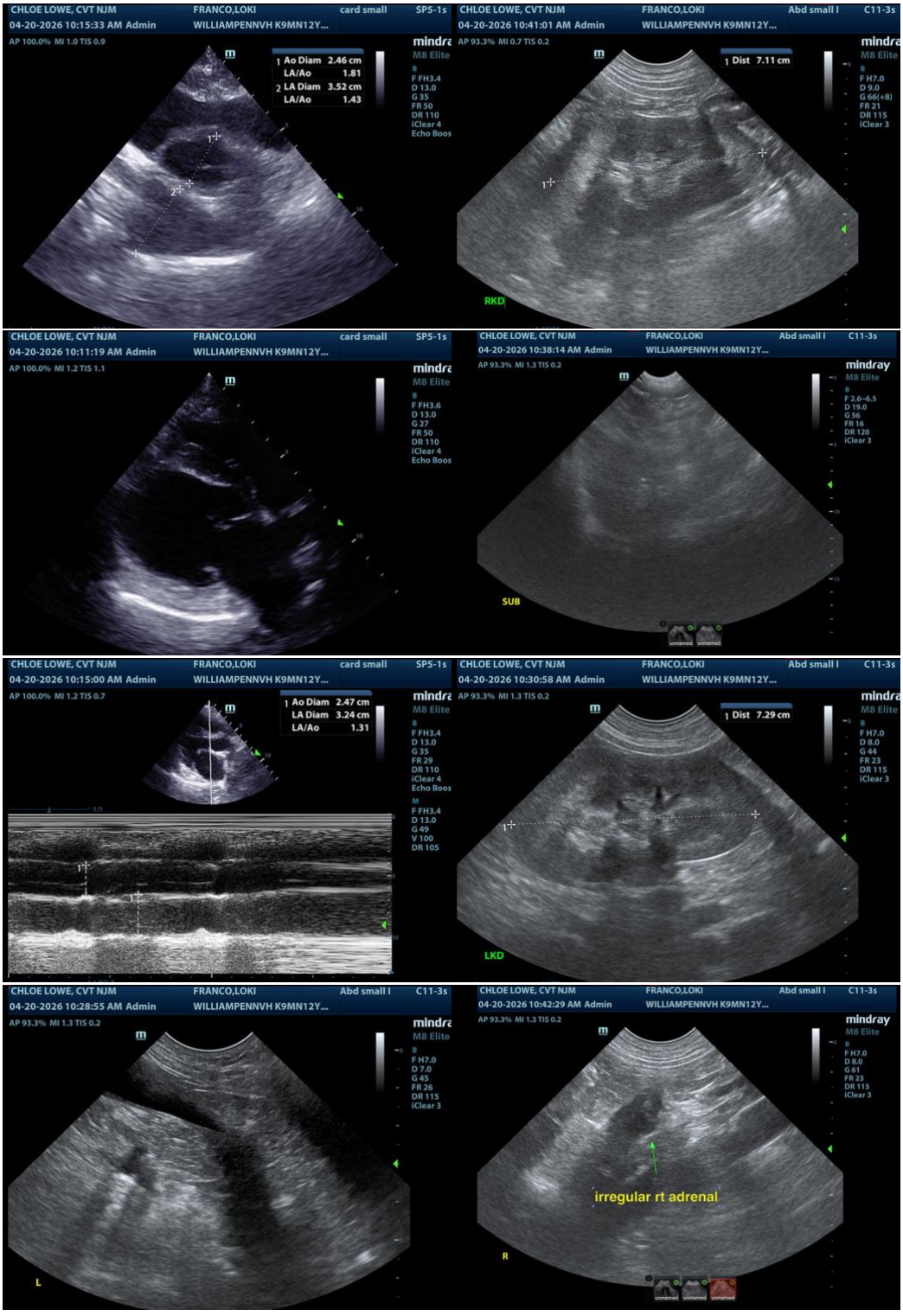

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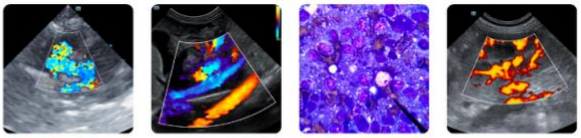

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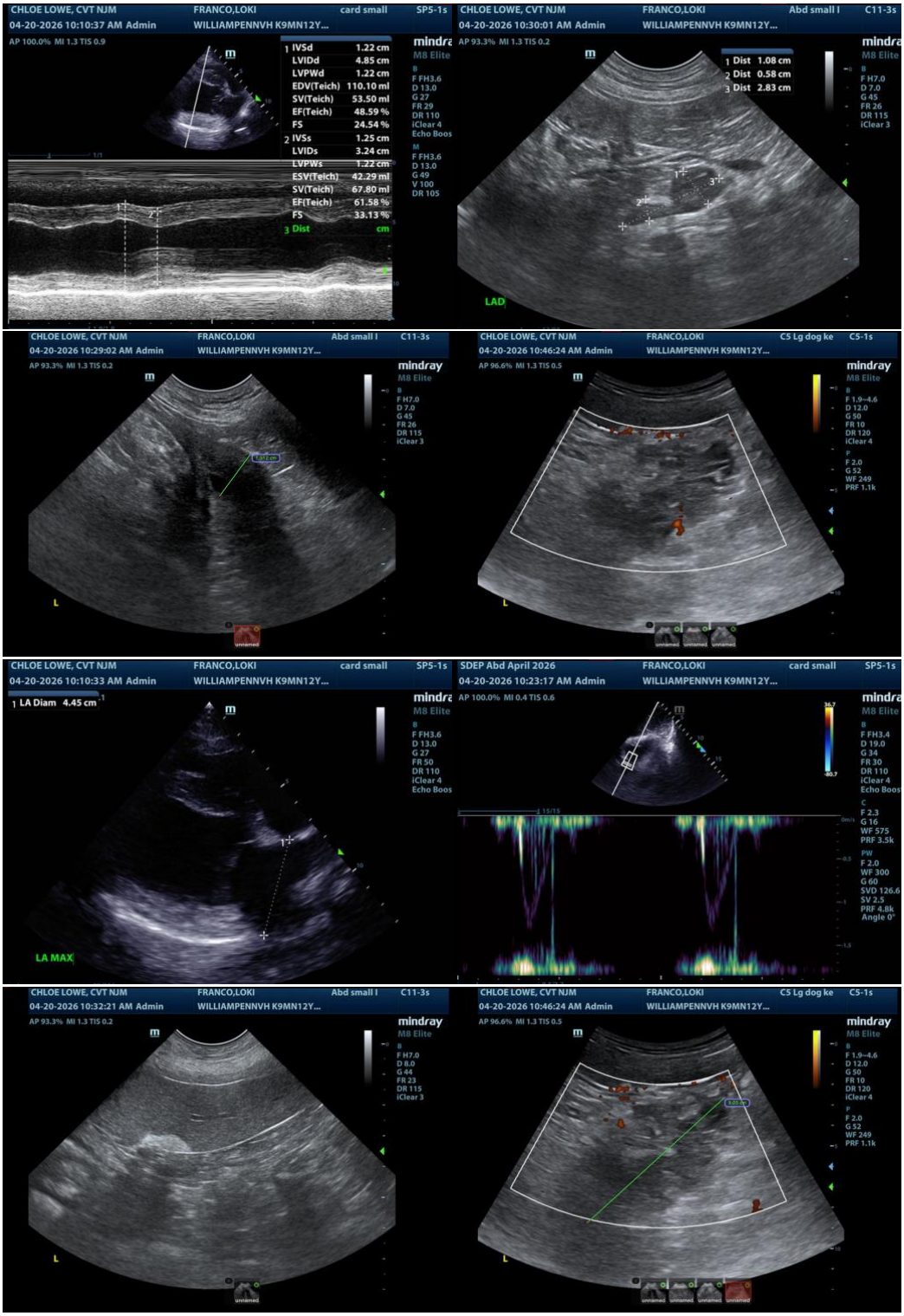

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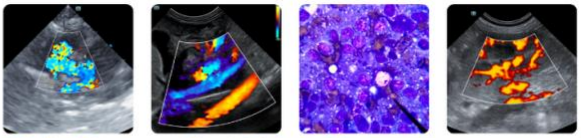

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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Eric Lindquist, DMV, DABVP(CFM), Cert. IVUSS,
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