

**PATIENT**

Brook Korn

**SPECIES**

Canine

**BREED**

Goldendoodle

**SEX**

Spayed female

**AGE**

9 ½ years

**WEIGHT**

49 lbs

**PRESENTING CLINICAL SIGNS**

History: Patient with history of gastroenteritis/IBD, presents for hematuria and inappropriate urination. Current med: Budesonide.

Abnormal PE/Chem/CBC/UA Results: CBC/Chem: WNL. U/A: Epithelia cells 4+, RBC >100, blood 3+, WBC 30-50, protein 2+, USG 1.011. Urine culture pending.

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

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.

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Kelly Vazquez, CVT

**HOSPITAL NAME**

Marsh Hospital for Animals

**REFERRING VET**

Dr. Milwicki

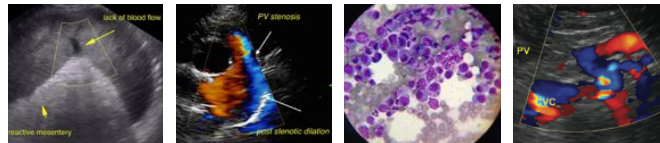
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1/24/23

CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (Boon method)	LA/AO (Heart Base;)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.6	28-40	40-100	<0.6
PATIENT			1.0	1.5	31	60	NM
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT	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	BELOW	BELOW	BELOW	BELOW
PATIENT	89	1.17	0.89	49 lbs	3.42	2.87	



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**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

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The **urinary bladder** revealed a mass that occupied the cystourethral junction, urethra and trigone. The mass was moderately vascular. Mineralized polyp was noted and measured 1.5 cm in width. A separate apical polyp was noted and measured 1.2 cm. The polyp was mineralized and strongly consistent with transitional cell carcinoma. Other polypoid changes were noted in the bladder.

**BREED**

Goldendoodle

The **kidneys** revealed normal size and structure, corticomedullary definition and ratio for this age. The cortices presented largely uniform texture with normal echogenic relationship to liver and spleen. Medullary structure differed distinctly from the cortex and no evidence of pelvic dilation was present. The capsules were acceptably uniform without significant irregularities. The right kidney measured 4.48 cm. The left kidney measured 5.57 cm.

**SEX**

Spayed female

**Adrenal Glands**

**AGE**

9 ½ years

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 1.85 x 0.38 cm and 0.41 cm at the cranial pole.

**WEIGHT**

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**Spleen**

**INTERPRETED BY**

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The **spleen** presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule was smooth without noticeable expansion or deviation from within the spleen or adjacent pathology. The splenic vasculature demonstrated normal volume without signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarctual changes was noted.

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**Liver**

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The **liver** images submitted revealed subjectively normal liver size, contour, and structure. Parenchymal echogenicity was naturally coarse and hypoechoic to the spleen. Vascular and biliary tracts were of normal volume with no evidence of congestion. The gallbladder presented acceptably thin walls with primarily anechoic content. The cystic and common bile ducts were normal. No pathological hepatic lymphadenopathy was evident. No overt structural evidence of inflammatory, infiltrative or regenerative pathology was evident.

**REFERRING VET**

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**Gastrointestinal**

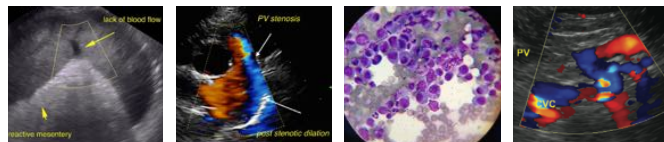
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Examination of the **gastrointestinal tract** revealed a stomach and intestine free of stasis, of normal wall thickness, acceptable curvilinear mural detail, and peristaltic activity. Small and large intestine demonstrated normal luminal chyme and 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.

**ULTRASONOGRAPHIC FINDINGS**

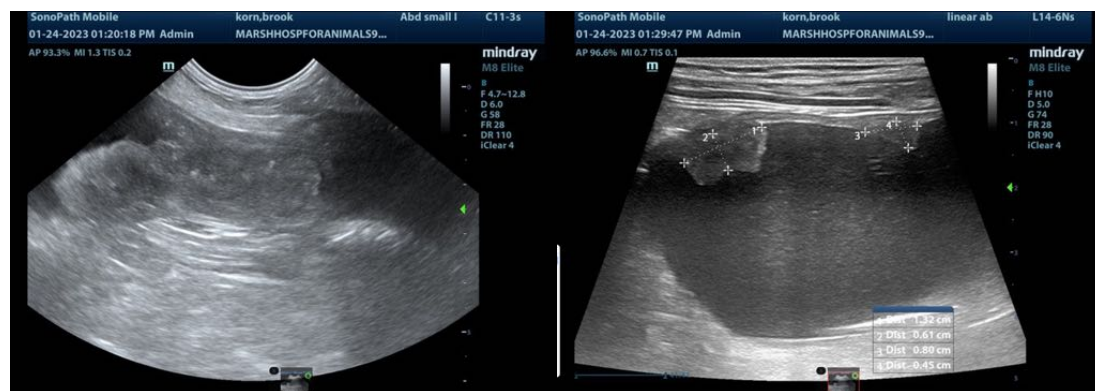
Bladder urethral mass and apical polyps, strongly consistent with transitional cell carcinoma.

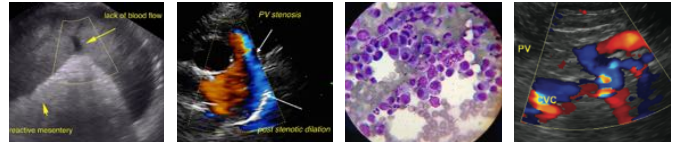
Otherwise, unremarkable abdomen.

Normal echocardiogram.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The bladder pathology is non-surgical; however, interventional radiology and stent placement at Animal Medical Center with Dr. Weisse and Dr. Berrent may prove effective. BRAF testing can be considered.





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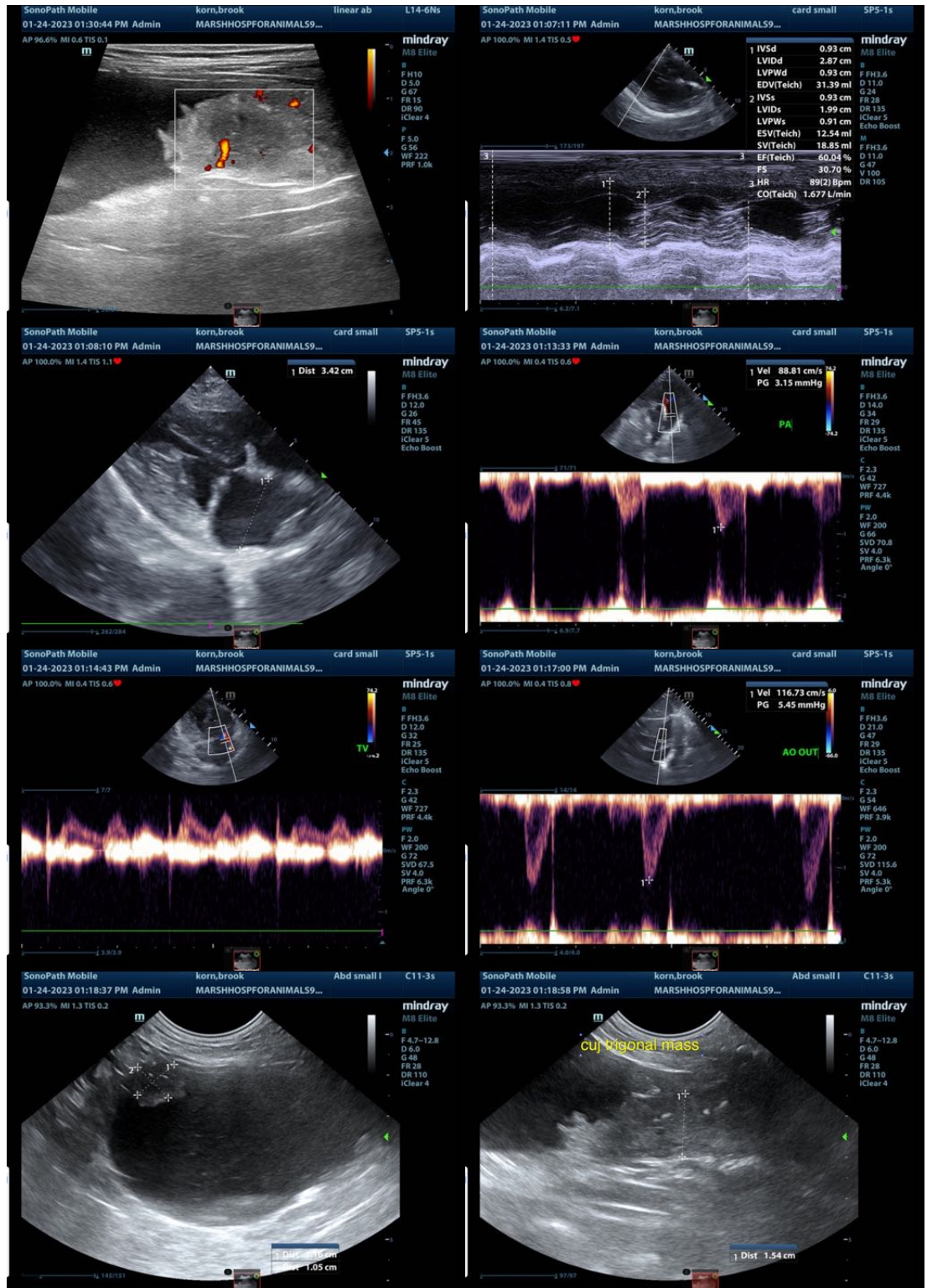
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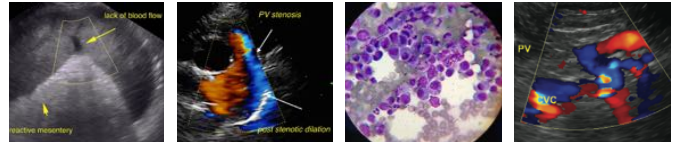
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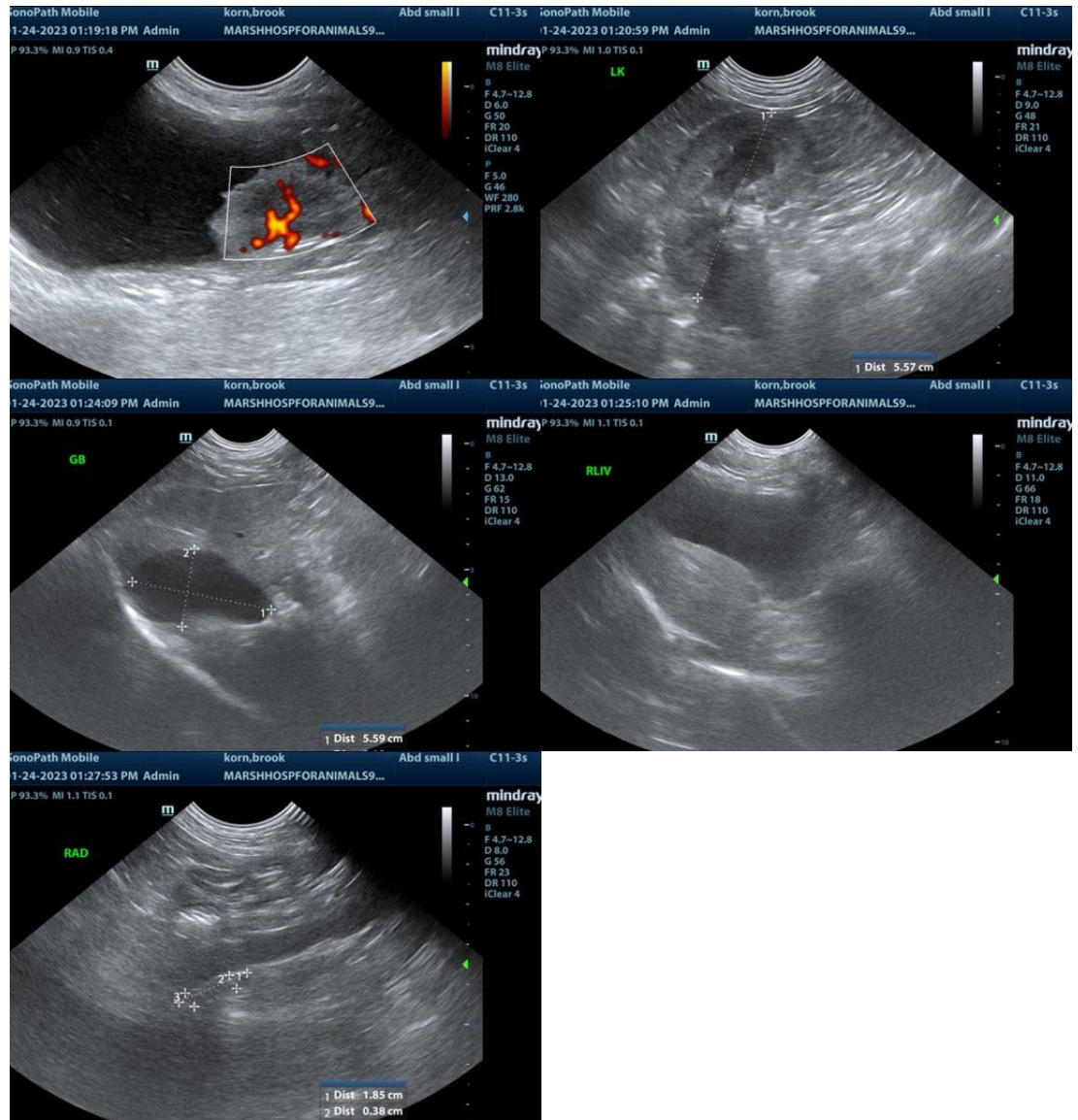
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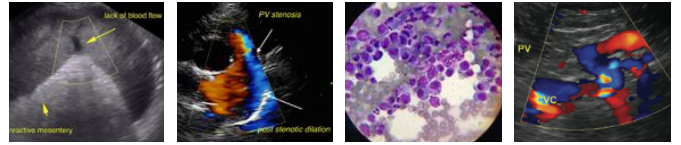


The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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



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