



PATIENT	PRESENTING CLINICAL SIGNS
Bo Herring	Vomiting, had abd. US in Oct. Hx of gallbladder issues. Current meds: Ursodiol 300mg 0.5 BID, Tylan powder- 1/8 tsp SID.
SPECIES	Abnormal PE/Chem/CBC/UA Results: ALT 355, ALKP 796, Lipa 1849, K 6.7, Mono 1.27, PLT 114, MPV 13.9
Canine	
BREED	ULTRASONOGRAPHIC RECHECK EXAMINATION OF THE ABDOMEN
Shetland Sheepdog	Urinary System The urinary bladder was normal in size and tone with mild prominent yet homogenous wall layering primarily in the area of the urinary bladder neck. The trigone, cystourethral junction, and visible pelvic urethra to a depth of 3 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with minor dependent mineral. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.
SEX	Subnormal right kidney size was present. Bilateral asymmetrical margination consistent with cortical infarcts was present. Non-obstructive mild renolithiasis was present. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and mild loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. The left kidney measured 5.6 cm in length. The right kidney measured 4.4 cm in length
MN	
AGE	
12yr	
WEIGHT	The area of the aortic trifurcation was free of pathology.
29.5lb	The area of the residual prostate appeared normal and free of pathology.
INTERPRETED BY	Adrenal Glands The left adrenal gland was mildly prominent based on caudal pole measurement and body weight. Heterogenous mildly nodular parenchyma was present without suspicion for overt neoplasia. No overt adrenal tumors. The left adrenal gland measured 2.5 cm length and 0.80 cm width in the caudal pole. The right adrenal gland measured 2.5 cm length and 0.67 cm width in the caudal pole.
R. McKenzie Daniel, DVM, DABVP (Canine and Feline)	
IMAGING PERFORMED BY	Spleen The spleen exhibited primarily finely textured parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Mild generalized parenchyma heterogeneity was present without evidence of nodular changes. 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. The parenchymal heterogeneity is likely consistent with benign changes such as extramedullary hematopoiesis or age related remodeling with minor potential for inflammatory or neoplastic disease.
Jessica Miller	
HOSPITAL NAME	Liver/Gallbladder The liver was subjectively enlarged in size with areas of capsule asymmetry and non-homogenous hypoechoic parenchyma exhibiting parenchymal remodeling. No masses or nodules present. The hepatic and portal vasculature were normal in appearance without signs of congestion.
ACC Flanders	
REFERRING VET	Gastrointestinal The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content with moderate non-dependent to congealed non-organized non-mineralized sludge. The cystic and common bile ducts were normal.
Dr. Hallihan	
INVOICE	
12643ag	
DATE	
01/10/2023	



PATIENT	The stomach presented mild wall thickening secondary to echogenic mucosa hypertrophy. Intact wall layering was maintained and distinct. Mild gastric distension with primarily anechoic fluid was present.
Bo Herring	
SPECIES	The intestinal walls demonstrated intact wall layering and maintained 1:3 muscularis / mucosa ratio. The mucosa exhibited mild decreased echogenicity with occasional mucosal speckling. A segmental to diffuse jejunal ileus pattern consisting of mild fluid accumulation in the intestinal lumen was present without obstruction or foreign material. Segmental duodenojejunal corrugation was present. No intestinal masses.
Canine	
BREED	Normal visible colon wall layers were present with apparent formed feces in lumen.
Shetland Sheepdog	
SEX	Pancreas
MN	The pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia.
AGE	Free Abdomen
12yr	No omental masses, overt lymphadenopathy or peritoneal effusion was present.
WEIGHT	ULTRASONOGRAPHIC FINDINGS
29.5lb	<ul style="list-style-type: none"> • Minor dependent urinary bladder mineral, possible regional cystitis • Bilateral chronic degenerative renal changes with non-obstructive renolithiasis and cortical infarcts • Mildly irregular/nodular adrenal glands-nonspecific, age related/adenomatous change, neoplastic criteria considered unlikely • Hepatopathy-potentially acute on chronic, vacuolar hepatopathy, inflammatory/immune mediated disease, cholestasis or other with neoplastic criteria considered less likely • Previously noted subjectively static gallbladder mucocele • Acute gastroenteritis pattern with mild duodenojejunal corrugation • Heterogenous to remodeled pancreas, possible chronic pancreatitis
INTERPRETED BY	INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS
R. McKenzie Daniel, DVM, DABVP (Canine and Feline)	This patient is likely passing small amounts of mineral from the kidneys into the urinary bladder. Further renal staging to include urine C/S and protein: creatinine ratio on sterile urine sample may be considered.
IMAGING PERFORMED BY	Assuming normal clotting status and using a 25g needle, a hepatic FNA for screening cytology is warranted for further assessment. A leptospirosis titer/PCR may be considered if clinically indicated or if potential exposure/endemic to the area.
Jessica Miller	
HOSPITAL NAME	Sonographically the appearance of the gallbladder is not overtly consistent with surgical criteria yet given progressive hepatic enzyme elevations close monitoring for evidence of progression, cholestasis and cranial abdominal/subxiphoid discomfort on palpation is recommended. Potential cholecystectomy if these clinical signs are noted should be considered.
ACC Flanders	
REFERRING VET	A spec cPL is warranted for further assessment of the pancreas.
Dr. Hallihan	A screening BP is advised to assess for evidence of hypertension which may allude to emerging adrenal neoplastic criteria i.e. pheochromocytoma.
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DATE	Enrofloxacin 5 mg/kg SID PO & Metronidazole (10-20 mg/kg po bid) over 3 weeks, Ursodiol (10-15 mg/kg p.o. q24h) over 8 weeks and recheck sonogram. Monitor rapid rise in ALT, SAP, Bilirubin, bilirubinuria, leukocytosis, focal cranial abdominal subxiphoid discomfort or progressive anorexia. More information regarding clinical emerging mucocele issues may be found with our article and research at http://sonopath.com/resources/articles, <i>Defining a GB Mucocele</i> and <i>Clinical Parameters in Dogs with Sonographically Diagnosed Surgical Biliary Disease</i> from ECVIM 2009.
01/10/2023	



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Bo Herring

SPECIES

Canine

BREED

Shetland Sheepdog

SEX

MN

AGE

12yr

WEIGHT

29.5lb

INTERPRETED BY

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

IMAGING PERFORMED BY

Jessica Miller

HOSPITAL NAME

ACC Flanders

REFERRING VET

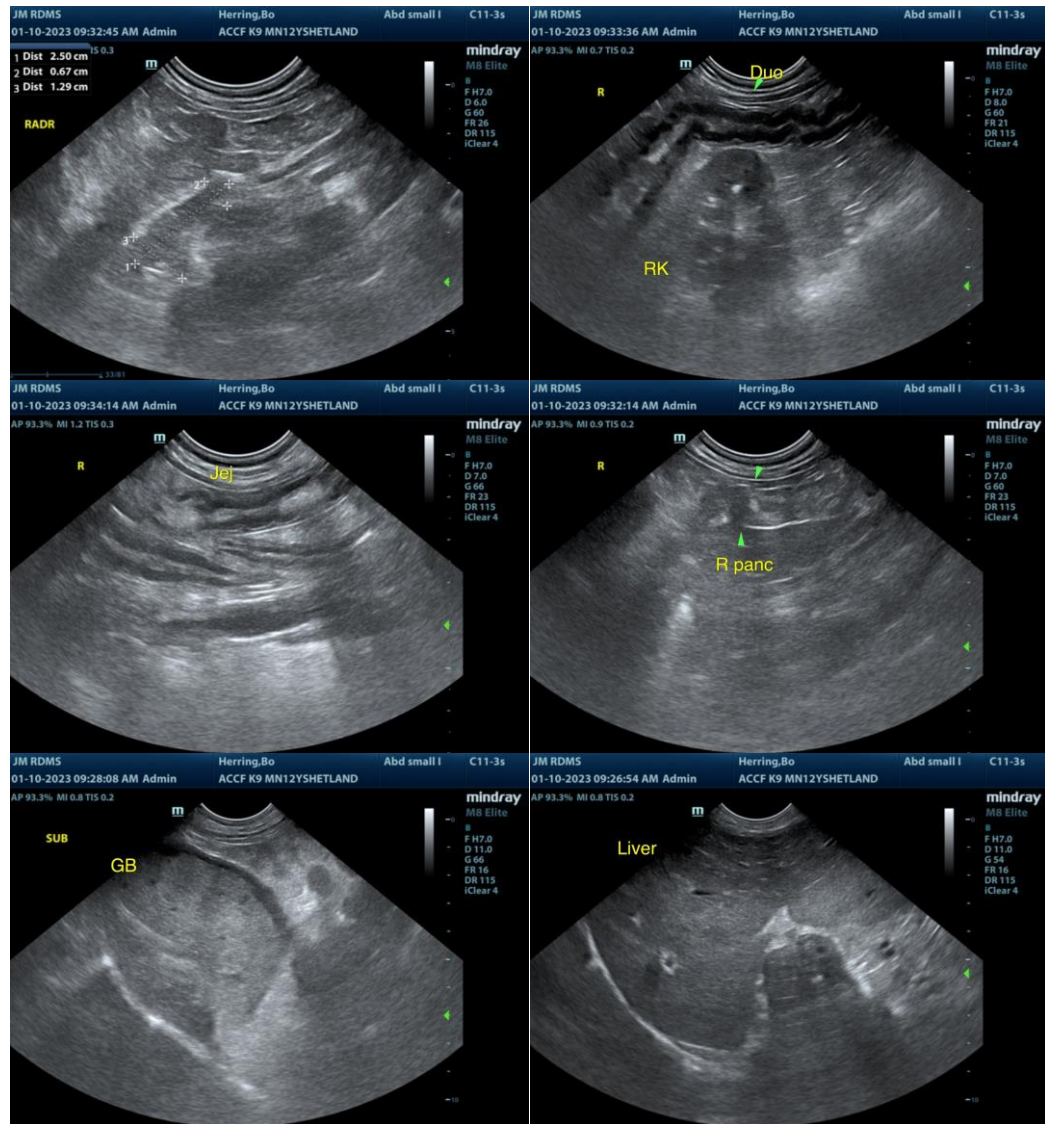
Dr. Hallihan

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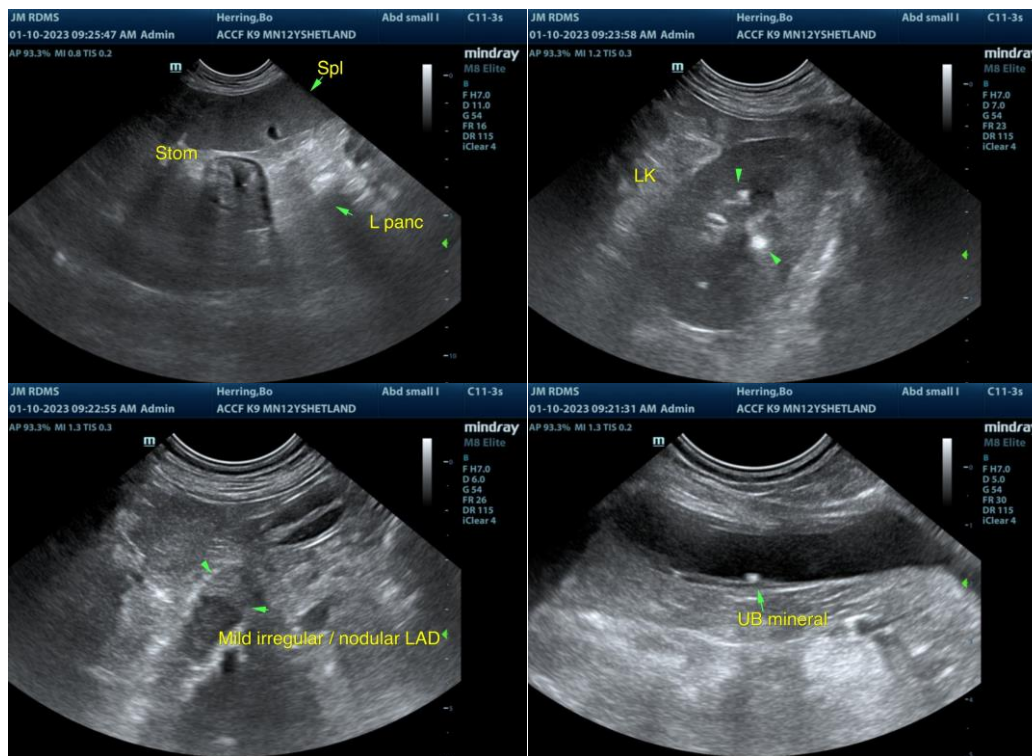
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

R. McKenzie Daniel, DVM, DABVP (Canine/Feline Practice)
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