


PATIENT PRESENTING CLINICAL SIGNS

PATIENT	Bella Sabatine
SPECIES	Canine
BREED	Sheltie
SEX	Female, spayed
AGE	11 Yrs.
WEIGHT	10.8 kg.
INTERPRETED BY	Andrea Nicastro, DVM, Diplomate ACVIM (Small Animal Internal Medicine)

History: New concern: elevated liver enzymes. History of protein losing nephropathy as well, with continued elevation of UPC. Chronic intermittent diarrhea since July 2021. Poorly responsive to metronidazole and tylosin. Diarrhea contains mucous, small/frequent amounts. Frequency/amount has improved, stools still semi-formed with mucous. Initially treated July 18/21 with metronidazole, fortiflora, sucralfate and gastrointestinal food x 10 days at erDVM, diarrhea did not improve greatly (25-50% improvement). Bloodwork at that time showed new elevation in ALP (387 U/L), BUN (20.3 mmol/L), CRE (138 umol/L). CBC NSF. Fecal PCR panel, zinc sulfate fecal float, hookworm/whipworm/roundworm antigen test negative, done at erDVM, July 27/21. Recheck Aug. 5/21, continued diarrhea, intermittent loss of appetite. Urea elevated 15.7 mmol/L, ALT elevated 133 U/L, ALKP elevated 546 U/L, new elevation of potassium at 5.6 mmol/L. - At this point elected to tx empirically for possible hepatitis vs. pancreatitis vs. other. - Tx clavaseptin 125 mg PO q12h x 14 d, tylosin 100 mg PO q12h x 14 d, vitamin B12 250 mcg SQ weekly x 4 weeks, denamarin 225 mg PO SID, cerenia 24 mg PO q24h. - Diarrhea continued, intermittently better, overall 25-50% improvement again. However energy levels and appetite improved. Recheck Sept. 8/21, bloodwork shows continued elevated ALKP at 660 U/L, rest of biochemistry WNL (CREA 127 umol/L, UREA 5.8 mmol/L, ALT 52 U/L, SDMA not measured today). Elected to try a longer course of metronidazole for diarrhea. UTD on leptospirosis vaccination. Protein losing nephropathy since early 2020. Consistently markedly elevated UPC, mildly elevated SDMA on bloodwork. Eats Royal Canin Renal or Hills k/d diet +/- home cooked if needed for appetite (Hilary's Blend Renal recipes). Receiving enalapril 7.5 mg PO q12h. Last UPC done May 27, 2021: 3.14 average over 3 days. Previous UPC as high as 6. Appetite intermittently poor, receives cerenia 30 mg PO PRN for appetite. Hypothyroidism since 2014, currently treated with thyrotab 0.2 mg PO q24h. Synovial cyst of stifle diagnosed July 2020, concurrent DJD, currently treated with gabapentin 50 mg PO q8-12 h, flexadin advanced joint supplement. Hormone responsive urinary incontinence since Feb. 2015, currently treated with stilbestrol 1 mg PO once weekly. current meds: Enalapril 7.5 mg PO q12h, cerenia 24 mg PO q48-72 h for appetite, metronidazole 125 mg PO q12h, denamarin 225 mg PO SID, stilbestrol 1 mg PO weekly, thyrotab 0.2 mg PO q24h, flexadin advanced chews, gabapentin 50 mg PO q12h, B12 225 mcg SQ monthly (finished weekly x 4 weeks), Renal/k/d food.

Abnormal PE/Chem/CBC/UA Results: Most recent: continued elevated ALKP at 660 U/L, rest of biochemistry WNL (CREA 127 umol/L, UREA 5.8 mmol/L, ALT 52 U/L, SDMA not measured today) Previously SDMA elevated ~19 ug/dL (May 2021). Snap4dx negative yearly (last done Feb. 2021).

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN
Urinary System

The urinary bladder, trigone, and pelvic urethra are normal in thickness and the mucosal surface is smooth. The bladder lumen is moderately distended with anechoic urine. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 2 cm, are normal.

The left kidney is normal size (5.48 cm in length) with a slightly irregular shape. The cortex is hyperechoic. There is a normal 1:3 cortex to medulla ratio with poor corticomedullary distinction. Hyperechoic shadowing diverticular foci are visualized. Mild pyelectasia is present (0.25 cm in the longitudinal plane). There is no evidence of hydronephrosis. Renal vasculature is normal.

The right kidney is normal size (5.47 cm in length) with a slightly irregular shape. The cortex is hyperechoic. There is a normal 1:3 cortex to medulla ratio. There is moderate loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydronephrosis. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal size (0.62 cm at cranial pole) (0.57 cm at caudal pole) (2.56 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

IMAGING PERFORMED BY

Kelly Reshny, RVT

HOSPITAL NAME

Graham AH

REFERRING VET

Dr. Lukaca

INVOICE

12071

DATE

9/14/21



PATIENT	The right adrenal gland is normal size (1.40 cm at cranial pole) (0.67 cm at caudal pole) (1.53 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.
Bella Sabatine	
SPECIES	<i>Spleen</i>
Canine	The spleen is normal in size with a normal capsular contour. There is appropriate echogenicity and echotexture. A few small myelolipomas are observed in the region of the hilus. Splenic vasculature is normal.
BREED	<i>Liver</i>
Sheltie	The liver is subjectively normal in size with slight rounding of the peripheral contours. The margin of the left lateral lobe is mildly irregular. The parenchyma is hypoechoic relative to the spleen and subtly heterogeneous in appearance with a few ill-defined hyperechoic areas. Vascular and biliary tracts are of normal volume with no evidence of congestion. The gall bladder lumen is moderately distended. The wall is thin and smooth. A moderate amount of aggregated echogenic partially dependent debris is observed within the lumen. The cystic and common bile ducts are normal/not seen.
SEX	
Female, spayed	
AGE	<i>Gastrointestinal</i>
11 Yrs.	The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is not distended. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The pyloric outflow tract is patent. The small intestinal lumen is not dilated. The small intestinal wall thickness is normal with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. No obstructive disease is noted.
WEIGHT	<i>Pancreas</i>
10.8 kg.	The region of the pancreas is isoechoic relative to surrounding omental fat. No obvious parenchymal abnormalities are observed. There is no evidence of regional inflammation or effusion.
INTERPRETED BY	<i>Free Abdomen</i>
Andrea Nicastro, DVM, Diplomate ACVIM (Small Animal Internal Medicine)	The peritoneal cavity is normal. There is no evidence of inflammation or effusion. The abdominal lymph nodes are normal/not visible.
IMAGING PERFORMED BY	
Kelly Reshny, RVT	
HOSPITAL NAME	ULTRASONOGRAPHIC FINDINGS
Graham AH	<ul style="list-style-type: none"> • The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, regenerative nodular hyperplasia, and/or age-related remodeling. Inflammatory and infiltrative disease are considered less likely. • Gallbladder debris, non-mucocele. • Bilateral nephropathy consistent with the patient's history of a protein-losing nephropathy.
REFERRING VET	
Dr. Lukaca	
INVOICE	<u>INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS</u>
12071	<ul style="list-style-type: none"> • Serial monitoring (i.e., every 3-4 months) of the patient's liver values is recommended. If values continue to increase consider repeat abdominal imaging +/- hepatic tissue sampling (i.e., fine needle aspirate or biopsy).
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- Consider testing for hyperadrenocorticism with a low-dose dexamethasone suppression test or ACTH stimulation test if clinical signs (i.e., PU/PD) develop.
- Given the persistent proteinuria, consider the addition of the following diagnostic/ treatment options:
 1. Angiotensin receptor blocker.
 2. Supplementation with omega 3 fatty acids.
 3. Antithrombotic agent (i.e., Clopidogrel).
 4. Monitoring of systemic blood pressure.
- Three-view thoracic radiographs are recommended to assess cardiopulmonary status.



INTERPRETED BY

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Medicine)

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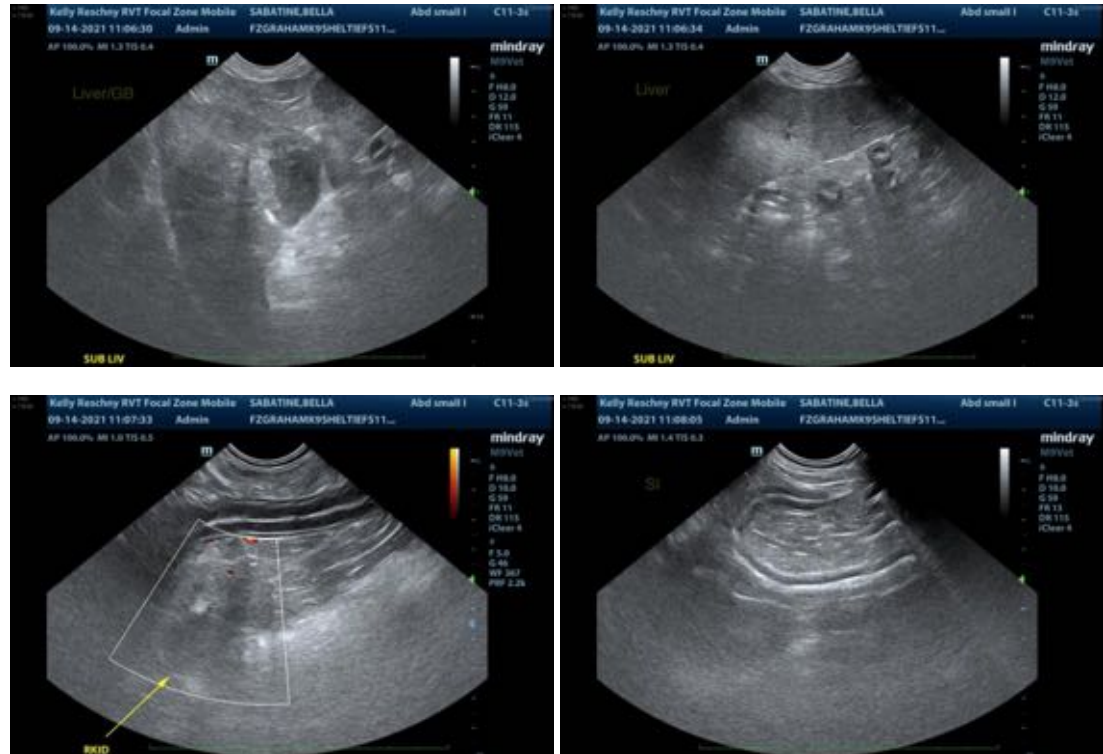
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Andrea Nicastro, DVM, Diplomate ACVIM (*Small Animal Internal Medicine*)

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