


PATIENT PRESENTING CLINICAL SIGNS

Grace Hook
 History: - Bilateral spatial cataracts - Missing numerous teeth, remaining dentition is clean - Profuse patches of alopecia, crusting, collarettes currently on apoquel
 Abnormal PE/Chem/CBC/UA Results: elevated SDMA 20 (0-14) UREA 9.6 (2.5-9.6) GLOB 46 (25-45) UPCR 3.4

SPECIES

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN
Urinary System
BREED

Sheltie

The urinary bladder is minimally distended. The wall is of appropriate thickness for the level of repletion and is slightly irregular. No cystic calculi are observed.

SEX

Female, intact

The left kidney is normal size (3.58 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal to mild loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

AGE

14 Yrs.

The right kidney is normal size (3.73 cm in length) with a slightly irregular shape. There is a normal 1:3 cortex to medulla ratio with moderate loss of corticomedullary distinction. A 0.97 cm cortical cyst is observed at the lateral aspect. A small amount of echogenic debris is observed within the cystic structure. The cyst causes capsular expansion. A 0.75 cm cyst is also seen at the medial aspect. Trace pyelectasia is present. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

WEIGHT

6 kg.

Adrenal Glands
INTERPRETED BY

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

The left adrenal gland is mildly enlarged (0.79 cm at cranial pole) (0.76 cm at caudal pole) (1.61 cm in length) with a slightly irregular shape. No distinct focal lesions are observed. The phrenicoabdominal vein and surrounding vasculature are normal.

The right adrenal gland is mildly enlarged (1.53 cm at cranial pole) (0.59 cm at caudal pole) (2.42 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

Spleen
HOSPITAL NAME

Snelgrove VS

The spleen is normal in size (0.73 cm in width at the level of the hilus) with a normal capsular contour. The parenchyma is slightly mottled in appearance. No focal lesions are observed. Splenic vasculature is normal.

Liver
REFERRING VET

Dr. McQueen

The liver is subjectively normal in size with normal curvilinear peripheral contours. The parenchyma is isoechoic relative to the spleen and exhibits mild heterogeneity. No distinct focal lesions are observed. Hepatic vasculature 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. Luminal contents are mostly anechoic. The cystic and common bile ducts are normal/not seen.

INVOICE

12402

Gastrointestinal
DATE

10/20/21

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


PATIENT

Grace Hook

pyloric outflow tract is patent. The small intestinal lumen is segmentally dilated with chyme. 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.

SPECIES

Canine

Pancreas

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.

BREED

Sheltie

Free Abdomen

The peritoneal cavity is normal. There is no evidence of inflammation or effusion. The abdominal lymph nodes are normal/not visible.

SEX

Female, intact

ULTRASONOGRAPHIC FINDINGS
Primary Findings:

- Bilateral nephropathy with right cortical cysts. Given the clinical history, a protein-losing nephropathy (PLN) is suspected. Differentials include idiopathic PLN or PLN secondary to infection, inflammatory disease or occult neoplasia. Idiopathic PLNs are the most common.

AGE

14 Yrs.

Secondary Findings:

- Mild bilateral adrenomegaly.
- The splenic parenchyma changes are most consistent with a benign process such as lymphoid hyperplasia, extramedullary hematopoiesis or splenitis with a low possibility of infiltrative neoplasia (i.e., lymphoma, mast cell neoplasia).
- 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.

WEIGHT

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

A search for an underlying cause for the protein losing nephropathy (PLN) can be considered, including the following:

- Three-view thoracic radiographs to assess for occult neoplasia.
- A comprehensive tick panel, including PCR and serology (submission to North Carolina State University's Vector Borne Disease Diagnostic Lab) is recommended.
<https://cvm.ncsu.edu/research/labs/clinical-sciences/vector-borne-disease/>.
- A urine culture is recommended to further evaluate for a urinary tract infection.
- Heartworm testing.

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Treatment considerations for PLN include:

- 1 Angiotensin II receptor blocker (e.g., Telmisartan)
- 2 Antithrombotic (e.g., Clopidogrel at 2.5 mg/kg PO q 24 hours)
- 3 Omega-3 fatty acids (65 mg/kg of DHA and EPA combined daily)

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- 4 Prescription renal diet
- 5 Baseline blood pressure measurement with serial monitoring thereafter
- 6 Routine monitoring of UPC and bloodwork (CBC, chemistry panel) to assess for progressive disease

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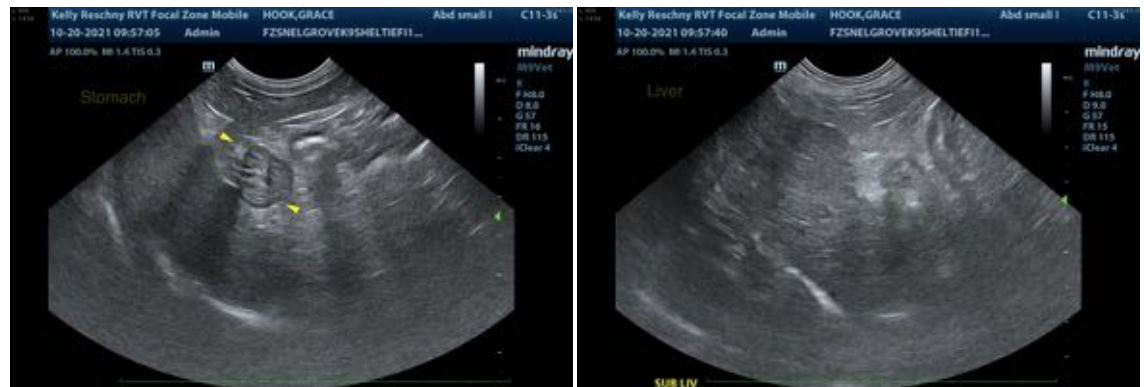
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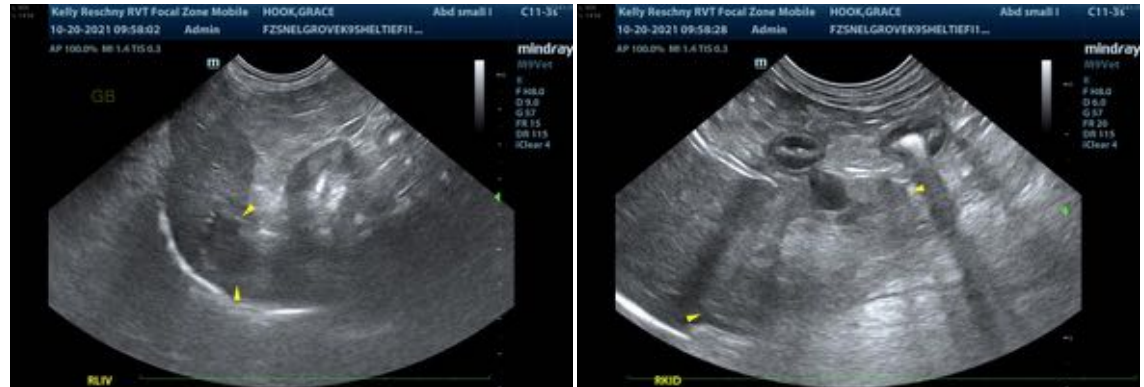
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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