



## PATIENT PRESENTING CLINICAL SIGNS

**Lily Newton** Presented at our hospital as a transfer from rDVM. P began not eating well on Saturday as well as vomiting. P has also had intermittent diarrhea. P was on medication (Gabapentin and Rimadyl) to get ready for the synovetin injection. O stopped those medication in the event the GI upset was stemmed from them, last dose of both medications was Sunday. P continued to vomit and have diarrhea after stopping the medications and went to rdvm for care. P had bw and they noticed signs of renal failure.

**Canine** Previous Health Concerns: bilateral ACL tears  
Current Medications: famotidine

## BREED

German Shepherd

**Abnormal PE/Chem/CBC/UA Results:** rDVM bloodwork: MCV 57.5; MCH 20.7; RDW 22.6%; WBC 18.25; NEU 15.37; MONO 1.40; BASO 0.11; CREA 5.9; BUN 91; PHOS 7.1; AMYL 1574; Na 142; Cl 106TT\$ 1.0  
rDVM UA: SG 1.010; PRO 30; BLD 250; WBC >50/hpf; RBC3/hpf; Rods+

## SEX

Spayed Female

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### Urinary System

The **urinary bladder** is distended. The wall is normal in thickness with a smooth mucosal surface. A small amount of gravity dependent, echogenic debris is observed within the lumen. The region of the trigone and the portion of the proximal urethra are normal.

## AGE

13yr

The **left kidney** is borderline small in size (5.53 cm in length); with an irregular. The cortex is variably thickened with a possible mass effect at the lateral aspect. There is moderate loss of corticomedullary distinction. Mild pyelectasia is present (0.33 cm in the longitudinal plane). Hyperechoic shadowing diverticular foci are visualized. There is no evidence of hydroureter. Renal vasculature is normal.

## WEIGHT

33.6kg

The **right kidney** is normal size (7.34 cm in length); with a slightly irregular shape. There is a normal 1:3 cortex to medulla ratio with moderate loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, or hydroureter. Renal vasculature is normal.

## INTERPRETED BY

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

### Adrenal Glands

The caudal pole of the **left adrenal gland** is visualized and is normal in size (0.63 in width) with a normal shape, glandular echogenicity and detail. Surrounding vasculature appears normal.

The region of the **right adrenal gland** is evaluated. No obvious pathology is observed.

## IMAGING PERFORMED BY

Erin Wicks

### Spleen

The **spleen** is subjectively normal in size (0.84 cm in width at the level of the hilus) with a folded contour and normal curvilinear peripheral margins. The parenchyma is homogenous. No focal lesions are observed. No focal lesions are observed. Splenic vasculature is normal with no evidence of thrombosis.

## HOSPITAL NAME

Shores Vet Emerg  
Ctr

### Liver

The **liver** is normal to prominent in size with normal curvilinear peripheral contours. The parenchyma is isoechoic relative to the spleen and homogenous in appearance. No distinct focal lesions are observed. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion.

## REFERRING VET

Dr Slenbaker

The **gall bladder** lumen is moderately distended. The wall is thin and smooth. A moderate amount of gravity dependent, echogenic debris is observed within the lumen. The cystic and common bile ducts are normal/not seen.

## INVOICE

11522

### Gastrointestinal

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

## DATE

8.31.22

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. There is no evidence of an obstructive pattern.

#### ***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.

#### ***Free Abdomen***

The **peritoneal cavity** is normal. There is no evidence of inflammation or effusion. A 2.32 x 1.16 cm rounded, hypoechoic, slightly cystic **lymph node** is observed in the left midabdominal, just caudal to the left renal artery.

### **ULTRASONOGRAPHIC FINDINGS**

#### **Primary Findings**

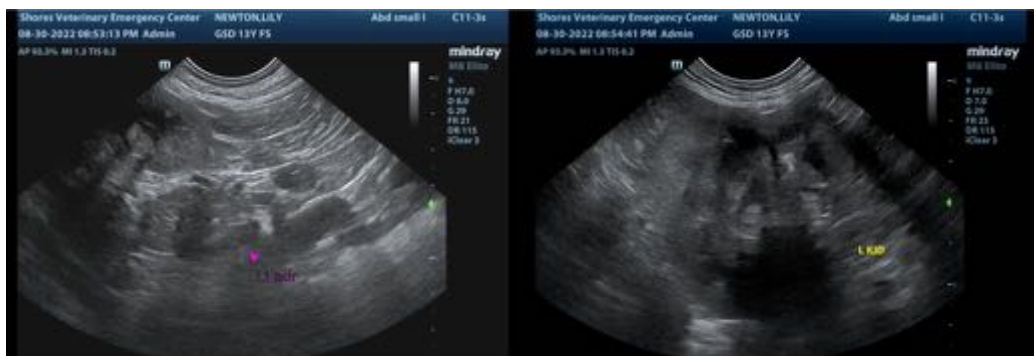
- Bilateral degenerative renal changes with questionable mass effect in the left cortex versus excessive cortical thickening.
- The urinary bladder debris could be consistent with cells, crystals, lipid droplets and/or exfoliated material

#### **Secondary Findings**

- Suspected benign hepatopathy. Idiopathic vacuolar hepatopathy is the top differential. However, correlation with the patient's liver values is recommended.
- Gall bladder debris – incidental
- The prominent left midabdominal lymph node is likely reactive with a lower possibility of infiltrative neoplasia.

### **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

- Three-view thoracic radiographs are recommended to assess cardiopulmonary status, particularly if IV fluid diuresis is to be initiated or continued.
- A fine-needle aspirate of the left renal cortex can also be considered if clotting status and blood pressure are normal.
- A baseline blood pressure measurement should be performed to assess for hypertension.
- A urine culture and sensitivity is also recommended, given the active urine sediment.
- Supportive care for acute on chronic renal failure is recommended, including IV fluid diuresis, antiemetics, gastric protectants, and broad-spectrum antibiotics (i.e., fluoroquinolone which has good renal penetration) is recommended, while awaiting urine culture and sensitivity results.
- Leptospirosis testing can also be considered, particularly if the clinical suspicion for disease is high.



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.

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