



PATIENT

Josca Rodriguez

SPECIES

Canine

BREED

Mini Dachshund

SEX

Spayed Female

AGE

13 years

WEIGHT

18.7 lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Ferrer, DVM

HOSPITAL NAME

Paseos VC

REFERRING VET

Dr. Jenniffer Walker

INVOICE

11722

DATE

9.28.22

PRESENTING CLINICAL SIGNS

History: Presented for an abdominal ultrasound for further evaluation of the liver and kidney. Patient present on 6/8/2022 with decrease appetite for her own food but will eat anything else like chicken PU/PD after further talking with owner no V/D weight bearing well hx of IVVD On 9/23 present for vomiting, diarrhea, and anorexia renal values elevated last chem and USG 1.010 no UTI detected (9/14/22) radiographs 9/14/22 enlarged liver

Abnormal PE/Chem/CBC/UA Results: The patient presented pain at abdominal palpation. The CBC was WNL. The chemistry profile showed azotemia (CREATININE -1.9 mg/dL & BUN -57 mg/dL). It also presented slightly low ALKP (15 U/L) and low potassium (K - 3.1 mmol/L).

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **urinary bladder** wall is normal in thickness. The mucosal surface in the region of the apex is slightly irregular. The bladder lumen is moderately distended with anechoic urine. No masses, inflammatory changes or calculi are observed. The region of the trigone and the visible portion of the proximal urethra are normal.

The **left kidney** is normal size (4.49 cm in length); with a slightly irregular shape. There is a normal 1:3 cortex to medulla ratio with mild to moderate loss of corticomedullary distinction. Mild to moderate pyelectasia is present (0.30 cm in the transverse plane). There is no evidence of nephroliths, infarcts or hydroureter.

The **right kidney** is normal size (4.67 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild to moderate loss of corticomedullary distinction. Mild pyelectasia is present (0.24 cm in the transverse plane). There is no evidence of nephroliths, infarcts or hydroureter.

Adrenal Glands

The **left adrenal gland** is normal size (0.43 cm at cranial pole) (0.51 cm at caudal pole); 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.

The **right adrenal gland** is normal size (0.59 cm at cranial pole) (0.42 cm at caudal pole); 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.

Spleen

The **spleen** is normal in size (1.36 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. A few hyperechoic nodules are visualized, the largest measuring 0.51 cm in diameter. Splenic vasculature is normal.

Liver

The **liver** is prominent 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. A moderate amount of mostly gravity dependent, echogenic debris/sludge is observed within the lumen. A scant amount of debris is also suspended. The cystic and common bile ducts are normal/not seen.

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 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 right limb of the **pancreas** is visible with normal curvilinear peripheral contours. The parenchyma is largely hyperechoic relative to surrounding omental fat and slightly mottled in appearance. The pancreatic duct is visible but not overtly dilated. There is no evidence of peripancreatic inflammation or effusion.

Free Abdomen

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

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Bilateral, nonspecific, degenerative renal changes. The bilateral pyelectasia may be secondary pyelonephritis, age-related remodeling, PU/PD or some combination thereof.

Secondary Findings

- Suspected benign diffuse hepatopathy. Vacuolar hepatopathy and regenerative nodular hyperplasia are the top differentials.
- Gall bladder debris/sludge – non-mucocele
- Age-related pancreatic remodeling with fibrosis. Mild chronic pancreatitis may also be present, particularly if the patient's clinical history is consistent with this finding.
- The hyperechoic splenic nodules likely represent a benign process (i.e., myelolipomas).

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

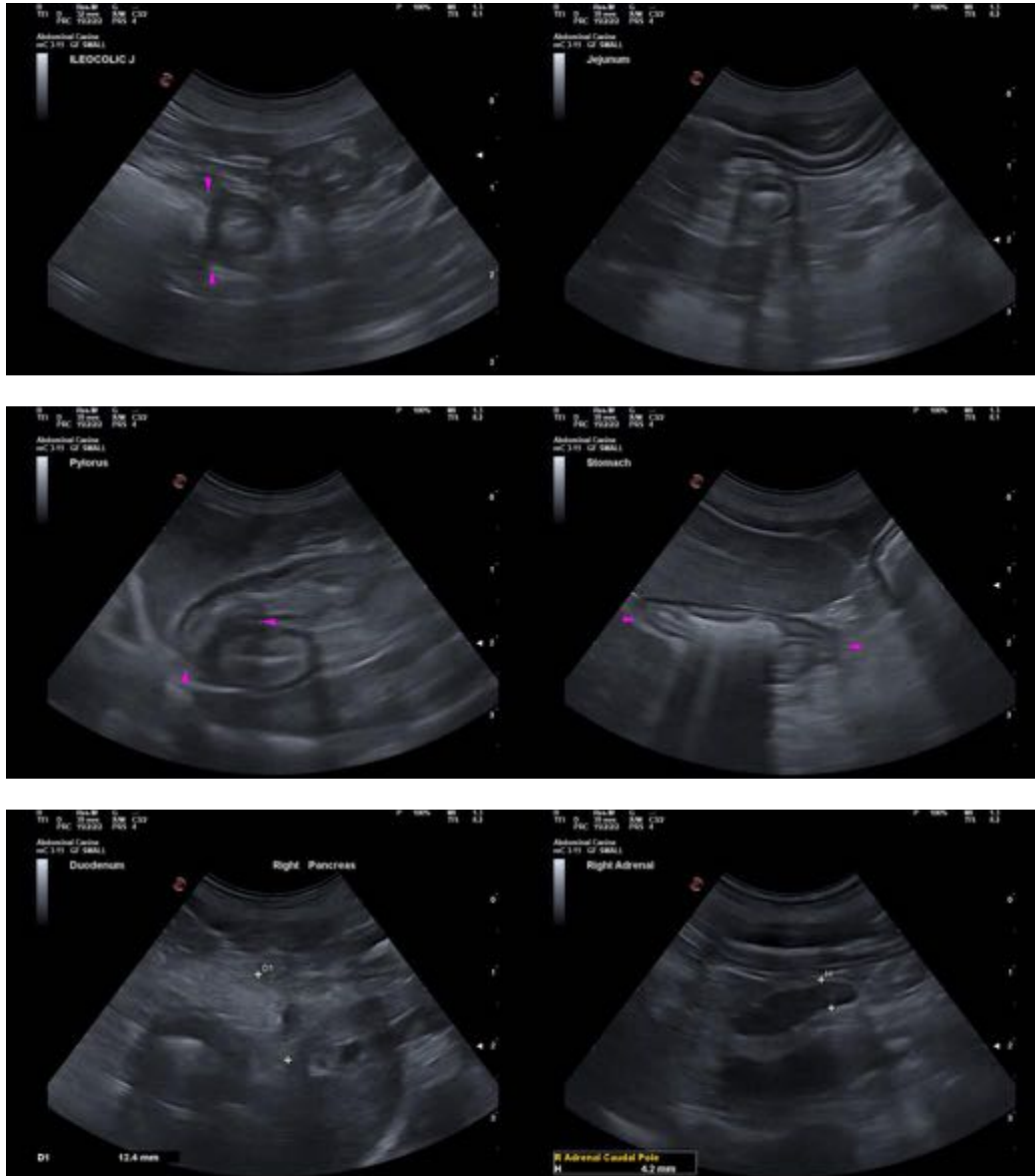
Given the history of PU/PD and mild azotemia, consider the following:

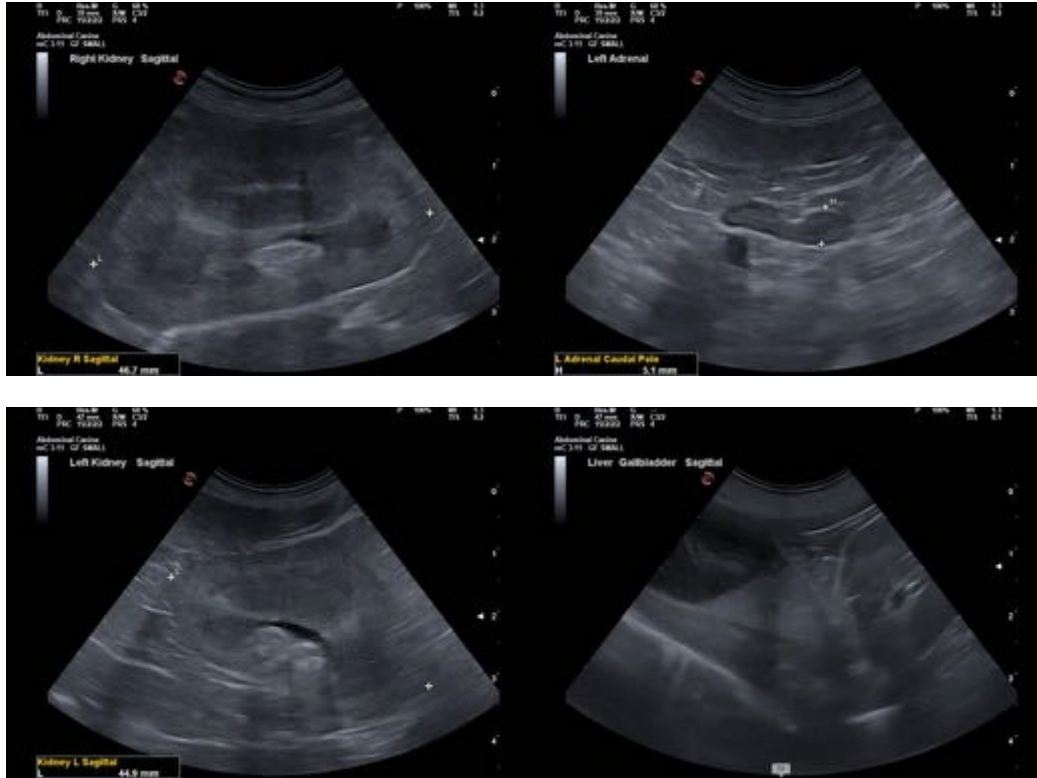
1. Urine culture and sensitivity
2. UPC (if proteinuria is present in the absence of a urinary tract infection)
3. Baseline blood pressure measurement

Regarding the gastrointestinal signs, consider the following:

1. A fecal evaluation for ova and Giardia is recommended
2. Prophylactic deworming with Fenbendazole
3. Malabsorption panel including serum cobalamin and folate, TLI and PLI
4. Consider supplementation with a probiotic (i.e., Provable Forte or Visbiome)
5. Symptomatic care for acute gastroenteritis is recommended.
6. A resting cortisol level to screen for hypoadrenocorticism. If resting cortisol level is < 2.0 mcg/dL, an ACTH stimulation test is recommended.

7. If clinical signs do not improve with supportive measures, GI biopsies may be necessary to get a definitive diagnosis.
8. Three-view thoracic radiographs should be performed prior to any anesthetic event. The risk of anesthesia should be weighed against the benefit of obtaining biopsies, particularly in light of the patient's renal disease.





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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