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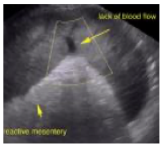
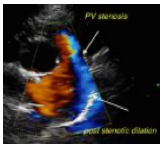
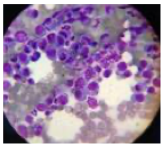
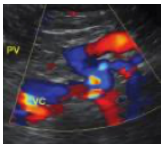
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

SonoPath.com
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PATIENT
Hope Pagan

SPECIES
Canine

BREED
Mixed

SEX
Intact Female

AGE
10 years

WEIGHT
59 lbs

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

IMAGING PERFORMED BY
Dr. Ferrer DVM

HOSPITAL NAME
Paseos VC

REFERRING VET
Dra. Biello

INVOICE
12670

DATE
4.5.23

PRESENTING CLINICAL SIGNS

History: Presented for an abdominal ultrasound to evaluate elevated renal values and anemia. Pt has a history of Cushing's disease and currently taking Vectory. Presented yesterday as pt is depressed, lethargic, and seems painful. Tx: -IV fluids -Recommend ACTH Stim tomorrow Concerned about possible development of Addison's

Abnormal PE/Chem/CBC/UA Results: BW: Cortisol - Baseline 7.4 µg/dL CBC: Hematocrit 33.3 37.3 - 61.7 % Reticulocytes 4.1 10.0 - 110.0 K/µL Hemoglobin 11.7 13.1 - 20.5 g/dL CHEM: Creatinine 3.4 0.5 - 1.8 mg/dL BUN 72 7 - 27 mg/dL Globulin 4.8 2.5 - 4.5 g/dL Cholesterol 482 110 - 320 mg/dL U/A: Bacteria +++ Dx test: -CBC: anemia -chemistry: elevation in renal values -Radiographs: Marked degenerative joint changes, marked spondylosis Azotemia Anemia

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended. The ventral wall is mildly thickened (up to 0.37 cm). The mucosal surface is smooth. A small to moderate amount of gravity-dependent echogenic debris is observed within the lumen. No cystic calculi are seen. The region of the trigone and the visible portion of the proximal urethra are normal.

The left kidney is normal in size (6.73 cm in length) with a slightly irregular shape. The cortex is thickened and hyperechoic relative to the spleen, with poor corticomedullary distinction. Small, mineralized foci are seen. Mild pyelectasia is present (0.34 cm in the longitudinal plane). There is no evidence of hydroureter.

The right kidney is normal in size (6.22 cm in length) with a slightly irregular shape. The cortex is thickened and hyperechoic relative to the spleen, with poor corticomedullary distinction. A 0.78 cm cortical cyst is seen. Small, mineralized foci are seen. Trace pyelectasia is present. There is no evidence of hydroureter.

Adrenal Glands

The left adrenal gland is mildly enlarged (0.74 cm at cranial pole) (0.74 cm at caudal pole) (2.56 cm in length) with a normal shape and smooth peripheral contours. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature appear normal.

The right adrenal gland is enlarged (0.80 cm at cranial pole) (0.82 cm at caudal pole) (2.62 cm in length) with a slightly irregular shape. The parenchyma is mildly hypoechoic with mostly retained glandular detail. No distinct focal lesions are observed. The phrenicoabdominal vein and surrounding vasculature appear normal.

Spleen

The spleen is normal in size (1.33 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature appears normal.

Liver

The liver is subjectively normal in size with curvilinear peripheral contours. The parenchyma is hypoechoic relative to the spleen. A 1.35 cm septated cystic lesion is observed on the right side. In addition, one to two small hyperechoic nodules are seen (the largest measuring 0.86 cm in diameter). Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion.

The gall bladder is distended. The wall is normal in thickness. A small to moderate amount of partially dependent, echogenic debris is observed within the lumen, along with a 0.47 cm mineralized focus near the gall bladder neck. The cystic and common bile ducts are normal/not seen.

Gastrointestinal

The gastric lumen is minimally fluid-distended. The gastric wall in the region of the fundus is normal to mildly thickened (up to 0.64 cm) with retention of the normal layering pattern. The pyloric outflow tract is patent. The small intestinal lumen is not dilated. The small intestinal wall is normal in thickness with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The ileocecocolic junction and colonic wall are 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

There is no obvious evidence of free fluid. A few prominent mesenteric lymph nodes are visualized (the largest measuring 1.70 cm in length). The nodes are normal in shape and echogenicity.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- The bilateral renal changes are consistent with chronic interstitial nephrosis/nephritis with mild nonobstructive nephrocalcinosis. The bilateral pyelectasia could be secondary to pyelonephritis, age-related remodeling, PU/PD (if applicable) or some combination thereof.

- Urinary bladder debris

Secondary Findings

- The bilateral adrenomegaly is consistent with the previous diagnosis of pituitary-dependent hyperadrenocorticism.

- Gall bladder debris with mineralized sand and/or a small cholelith

- The gastric wall changes may be a normal variant for this patient or may be secondary to gastritis, or less likely, emerging neoplasia.

- The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.

- The hyperechoic hepatic nodules trend toward the benign (i.e., regenerative nodules) with a lower possibility of emerging neoplasia. The cystic hepatic nodule could be consistent with a benign cyst, biliary cystadenoma, biliary cystadenocarcinoma, emerging vascular tumor, other.

  *The anemia may be secondary to chronic renal disease, low-grade GI bleeding, other.

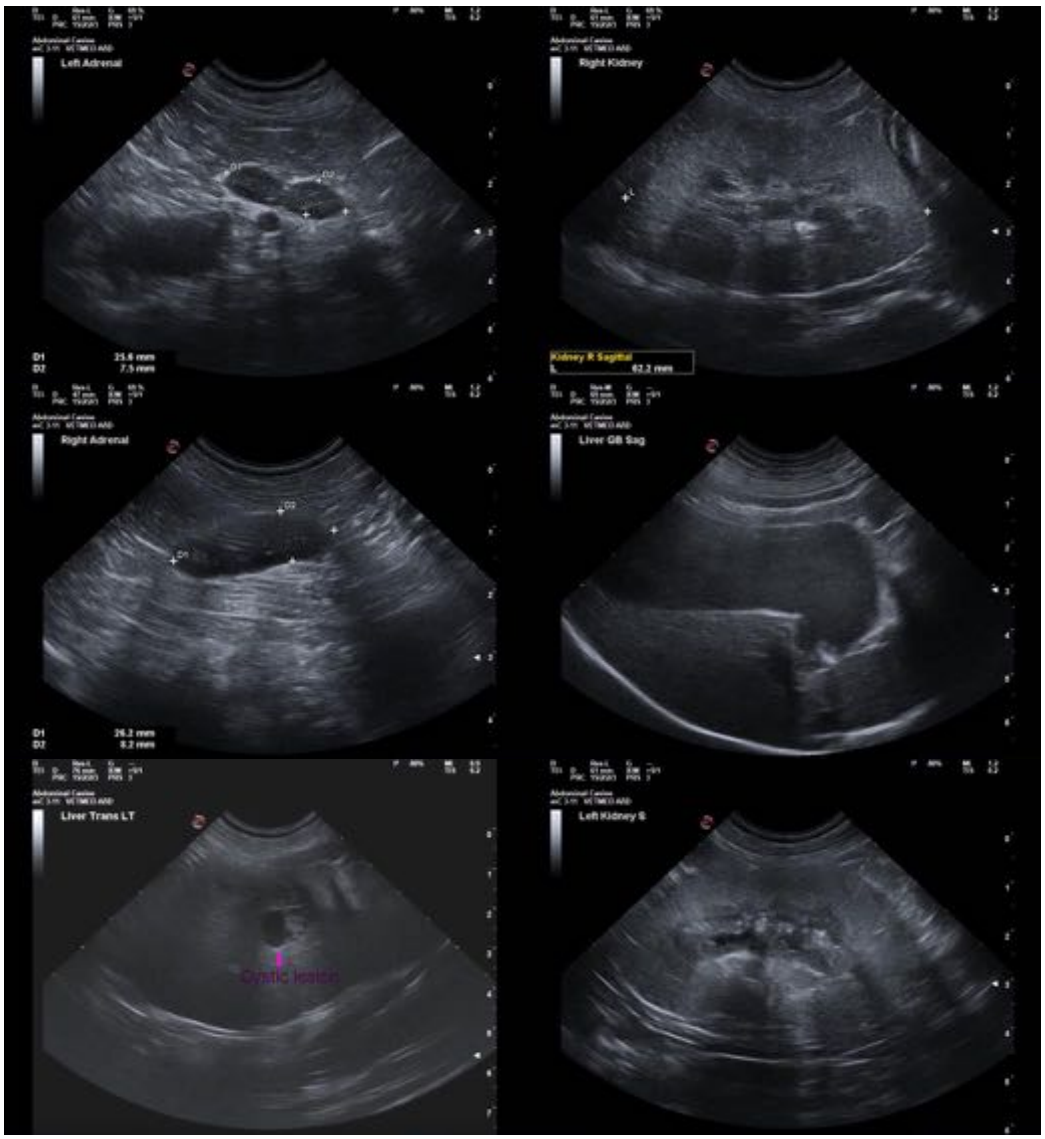
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

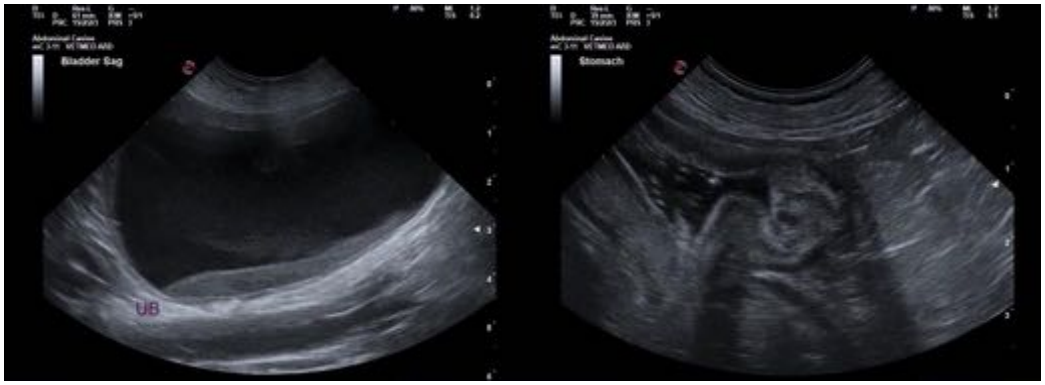
- Given the patient's clinical history and sonograph changes, consider the following:

  1. Urine culture and sensitivity

2. UPC (if proteinuria is present in the absence of infection)
3. Baseline blood pressure measurement
4. IV fluid diuresis and symptomatic care, including broad-spectrum antibiotics (while awaiting urine culture and sensitivity results).
5. Also consider three-view thoracic radiographs to assess cardiopulmonary status, particularly if IV fluid diuresis is to be initiated.

- Serial monitoring of the patient's hematocrit and renal values is recommended to assess for progression.





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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