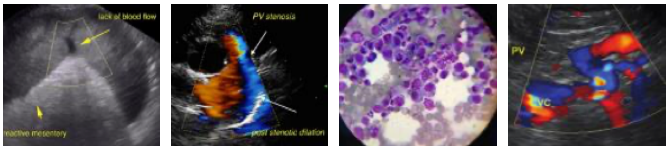
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT
Gracie Spaulding

SPECIES
Canine

BREED
Bichon Frise

SEX
Female, spayed

AGE
12 Yrs.

WEIGHT
6.95 kg.

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

IMAGING PERFORMED BY
Dr. Barthelemy

HOSPITAL NAME
Britannia Kingsland VC

REFERRING VET
Dr. Hamill

INVOICE
14527

DATE
1/31/23

PRESENTING CLINICAL SIGNS

History: Pu/pd, polyphagia. Labs consistent with Cushing's disease, purpose of scan is to differentiate pituitary vs adrenal.
Abnormal PE/Chem/CBC/UA Results: Elevated ALP. Minimally concentrated urine at 1.012. Borderline UPCR at 0.2. LDDST compatible with Cushing's given the clinical signs.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder wall is 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. The region of the trigone and the visible portion of the proximal urethra are normal.

The left kidney is normal size (4.69 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild loss of corticomedullary distinction. Mild pyelectasia is present (0.20 cm in the transverse plane). There is no evidence of nephroliths, infarcts or hydroureter.

The right kidney is normal size (3.43 cm in length) with an irregular shape. The kidney is hydronephrotic with complete loss of normal renal architecture and only a thin rim of cortex remaining. The proximal ureter is dilated (up to 0.25 cm) and is visible for at least 2 cm beyond the renal pelvis.

Adrenal Glands

The left adrenal gland is enlarged (0.73 cm at cranial pole) (0.97 cm at caudal pole) with a slightly irregular shape. A 0.90 x 0.81 cm ill-defined isoechoic to hyperechoic nodule is observed at the caudal pole. The parenchyma at the cranial pole is slightly heterogeneous in appearance. Surrounding vasculature appears normal.

The right adrenal gland is mildly enlarged (0.72 cm at cranial pole) (0.58 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

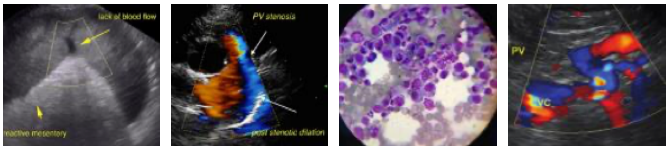
The spleen is normal in size (1.10 cm in width at the level of the hilus) with a normal capsular contour. The parenchyma is subtly mottled in appearance. Several irregular hyperechoic nodules are observed throughout the organ, the largest measuring 1.10 cm in diameter. Splenic vasculature is normal.

Liver

The liver is prominent to enlarged with slightly swollen peripheral contours. The parenchyma is isoechoic relative to the spleen and diffusely homogeneous in appearance. No distinct focal lesions are observed. 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 suspended sludge in a partially stellate pattern is observed within the lumen. 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



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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.

Pancreas

The base and right limb of the pancreas are visible with normal curvilinear peripheral contours. The parenchyma is largely isoechoic 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:

- The bilateral adrenomegaly, in conjunction with the patient's clinical history, is consistent with pituitary-dependent hyperadrenocorticism. The suspected left adrenal nodule may be due to benign nodular hyperplasia or an emerging tumor (i.e., adenoma, adenocarcinoma, pheochromocytoma).
- The gallbladder changes are consistent with a developing mucocele.
- The hepatic parenchymal changes are most consistent with vacuolar hepatopathy (i.e., endocrine, idiopathic) with a lower possibility of inflammatory or infiltrative disease.

Secondary Findings:

- Severe right hydronephrosis/hydroureter. This is likely secondary to a ureteral obstruction (i.e., stricture, stone, tumor), although the obstruction itself is not definitively visualized.
- Left chronic renal changes with mild pyelectasia.
- The splenic parenchymal changes are most consistent with a benign process such as lymphoid hyperplasia, extramedullary hematopoiesis, splenitis or antigenic stimulation with a low possibility of infiltrative neoplasia (i.e., lymphoma, mast cell neoplasia). The hyperechoic splenic nodules trend toward the benign (i.e., myelolipomas) with a low possibility of emerging neoplasia (i.e., mast cell disease).
- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Consider initiation of medical therapy (i.e., trilostane) for pituitary-dependent hyperadrenocorticism. Serial sonographic monitoring (i.e., every 3-6 months) of the patient's left adrenal gland is recommended to assess for growth of the suspected nodule. A baseline blood pressure measurement is also recommended to evaluate for systemic hypertension.

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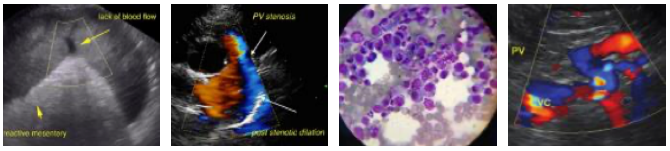

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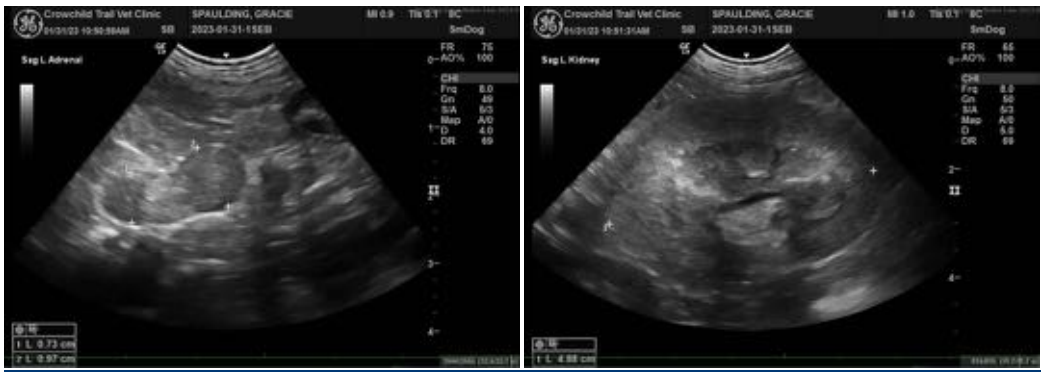
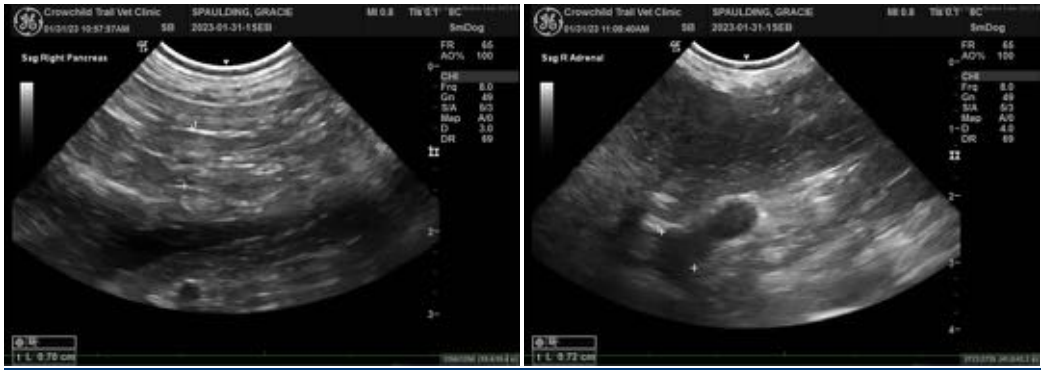
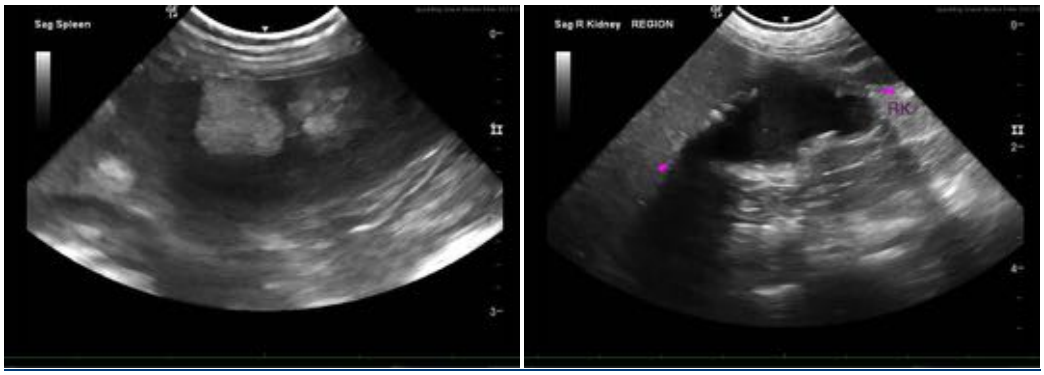
- Given the gall bladder changes, Ursodeoxycholic acid (Ursodiol) at 10-15 mg/kg once a day is recommended. Serial sonographic monitoring (e.g., every 6-8 weeks) of the gall bladder is recommended to assess for progression to a fully formed mucocele.
- Given the bilateral renal changes, consider a urine culture and sensitivity to assess for occult infection.







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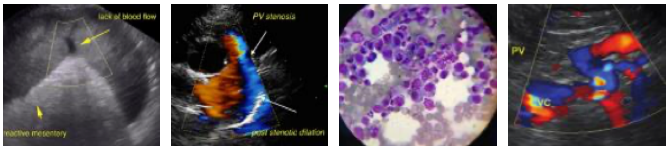

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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Andrea Nicastro, MPH, DVM, Diplomate DACVIM (Small Animal Internal Medicine)
info@SonoPath.com