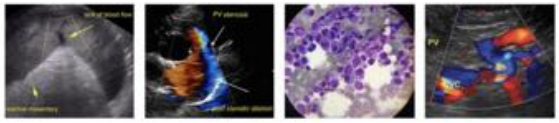


PATIENT

Honey McHugh

SPECIES

Canine

BREED

KC Cavalier

SEX

Spayed Female

AGE

4.23.2012

WEIGHT

16.8 lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

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

HOSPITAL NAME

Southeast Vet Derm&Ear Clinic

REFERRING VET

Randall Thomas

INVOICE

11639

DATE

9.15.22

PRESENTING CLINICAL SIGNS

Clinical Exam Findings: Patient presented for pododermatitis on all paws. Present for approx. 1 mos. culture revealed MR Staph and Pseudomonas infection. I'm not concerned about Pseudomonas, so we are just treating the Staph with linezolid (just started yesterday). There is focally extensive, non-inflammatory truncal alopecia with hyperpigmentation of the skin; recent enlargement of the vulva with some perivulvar dermatitis; She was diagnosed with Cushing's' disease in 2021 (in Colorado) and has been on Vetoryl 10 mg bid for at least a year. No improvement with haircoat; patient has never been PU/PD or pp. She has Grade III/VI systolic heart murmur for unknown duration. Not currently being managed. No signs of heart failure that I can detect / determine.

Abnormal lab-work values: Bloodwork from April 2022 showed low Alb (2.4), elevated ALT (480), AST (80), Alk Phos (901); ACTH stim at that time (pre and post both 1.7)
Current Medications: List will be provided. On Trilostane, Incurin.
Radiographic Findings: None

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **urinary bladder** is moderately distended. The wall is normal in thickness with a smooth mucosal surface. A small amount of echogenic to mineralized, suspended debris is observed within the lumen, +/- a few tiny calculi. The region of the trigone and the proximal urethra, visible to a depth of 2 cm, are normal.

The **left kidney** is normal size (4.73 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. Hyperechoic shadowing diverticular foci are visualized. A few, small, nonobstructive nephroliths are visualized. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

The **right 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. Hyperechoic shadowing diverticular foci are visualized. A few, small, nonobstructive nephroliths are visualized. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The **left adrenal gland** is mildly enlarged (0.54 cm at cranial pole) (0.63 cm at caudal pole) (1.61 cm in length); with a slightly irregular shape. The parenchyma is mildly hypoechoic with some loss of glandular detail. No focal lesions are observed. The phrenicoabdominal vein and surrounding vasculature are normal.

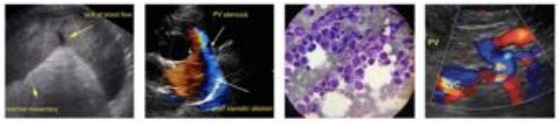
The **right adrenal gland** is normal size (0.99 cm at cranial pole) (0.69 cm at caudal pole) (2.07 cm in length); with a slightly irregular shape. The parenchyma is mildly hypoechoic with some loss of glandular detail. No focal lesions are observed. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen

The **spleen** is normal in size (1.42 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 is normal.

Liver

The **liver** is subjectively normal to slightly small in size with mildly irregular peripheral contours. The parenchyma is hypoechoic relative to the spleen and diffusely and severely mottled, bordering on a



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"Swiss cheese" appearance. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion. The portal vein to caudal vena cava ratio is approximately 1: 1.

The **gall bladder** lumen is moderately distended. The wall is thin and smooth. Luminal contents are anechoic. 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 mildly to moderately distended with ingesta. 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 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

There is no obvious evidence of free fluid. The abdominal **lymph nodes** are normal/not visible.

Other

The uterine stump is severely enlarged (0.67 cm in diameter) with thickened (up to 0.43 cm) irregular walls, and what appears to be echogenic material within the lumen. The uterine stump is visualized up until the apex of the bladder, where it appears to bifurcate and abruptly terminate. The mesentery effacing the serosal surface is slightly hyperechoic.

Evaluation of the left and right ovarian fossae reveals no obvious evidence of ovarian remnants.

A brief echocardiogram reveals no evidence of pericardial effusion or obvious right atrial/auricular mass.

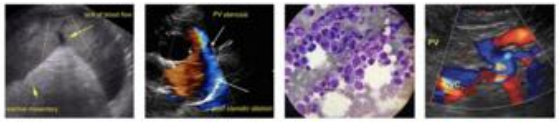
ULTRASONOGRAPHIC FINDINGS

Primary Findings

- The hepatic parenchymal changes, in conjunction with the patient's clinical history, are concerning for hepatocutaneous syndrome. Other differentials include chronic inflammatory disease, fibrosis, or less likely, infiltrative neoplasia.
- Possible stump pyometra. This may be secondary to Incurin, atypical hyperadrenocorticism, exogenous hormone exposure, ovarian remnant syndrome, other.

Secondary Findings

- The bilateral adrenomegaly is consistent with the previous diagnosis of pituitary-dependent hyperadrenocorticism.
- Bilateral, degenerative renal changes with nonobstructive nephrocalcinosis
- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.



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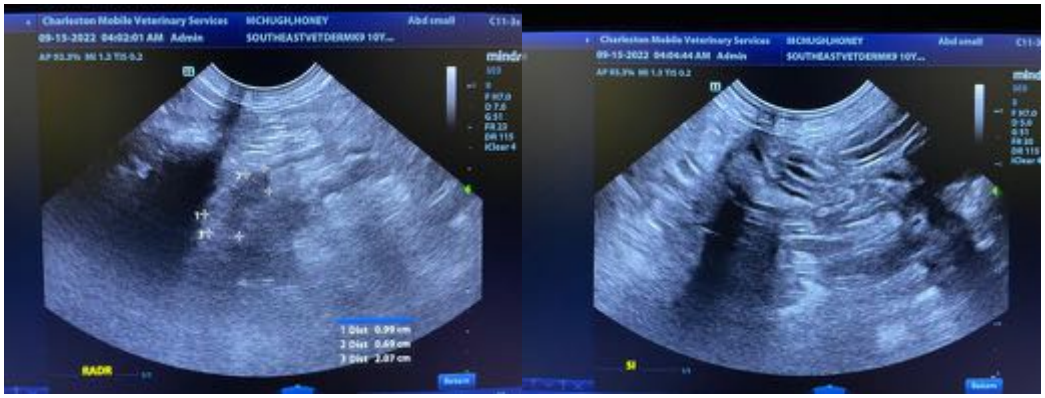
- Mineralized urinary bladder debris, +/- tiny calculi

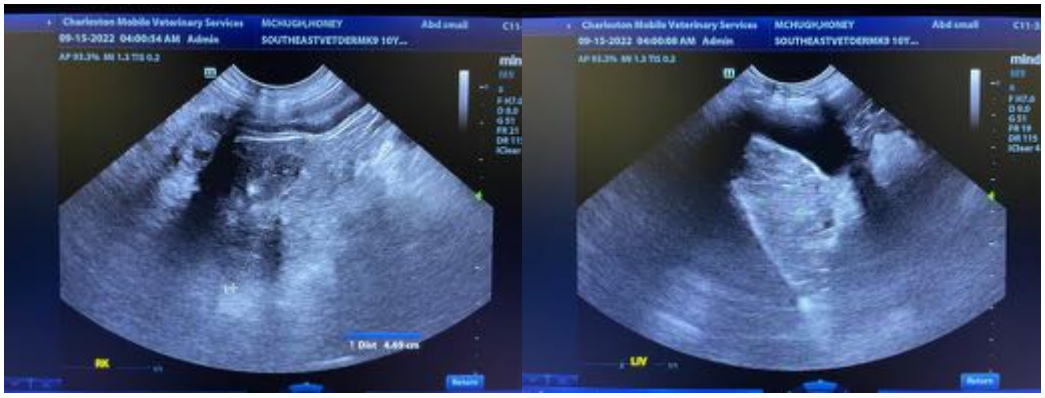
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Further recommendations regarding the potential hepatocutaneous syndrome will be implemented by Dr. Randy Thomas. Treatments could include intravenous amino acids +/- lipids, omega-3 fatty acids, hepatic antioxidants and symptomatic treatment. Recheck bloodwork as well as pre- and post-prandial serum bile acids are also recommended.

Regarding the uterine changes, a vaginal cytology would be useful in confirming a stump pyometra. Discontinuation of Incurin +/- Trilostane is recommended with a recheck ultrasound +/- adrenal panel (University of Tennessee) in 3-4 weeks. Broad-spectrum antibiotic therapy is recommended in the interim. If the patient's stump pyometra worsens during this time period, surgical resection of the uterine stump along with a search for an ovarian remnant can also be considered.

Given the patient's history of a heart murmur, thoracic radiographs, an echocardiogram, and blood pressure +/- EKG should be considered.





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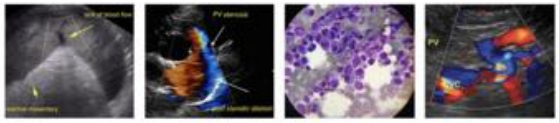

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CharlestonMobile.Net 800.403.5408

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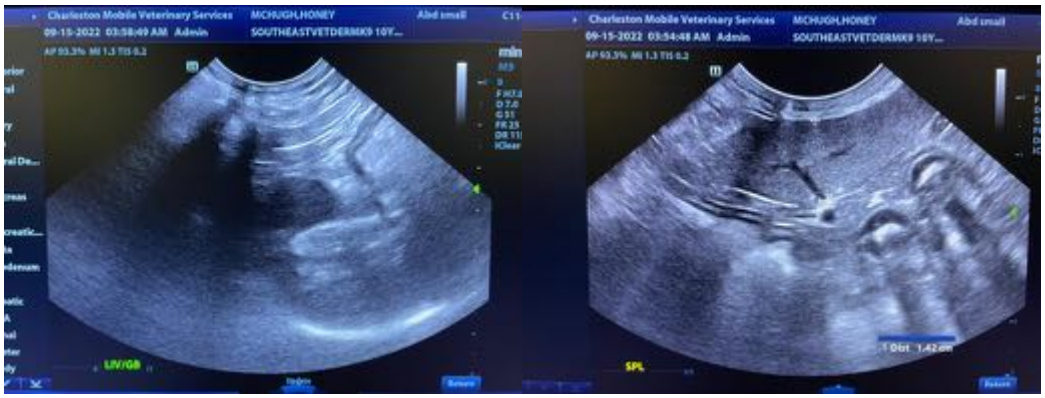

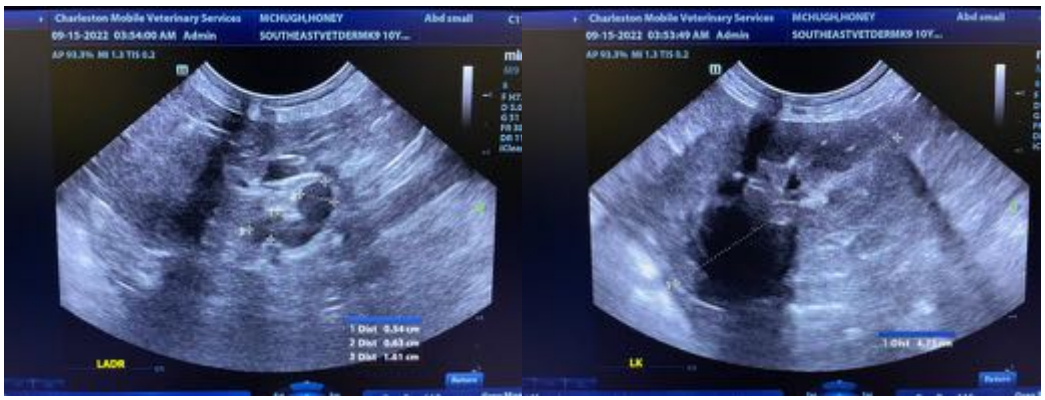

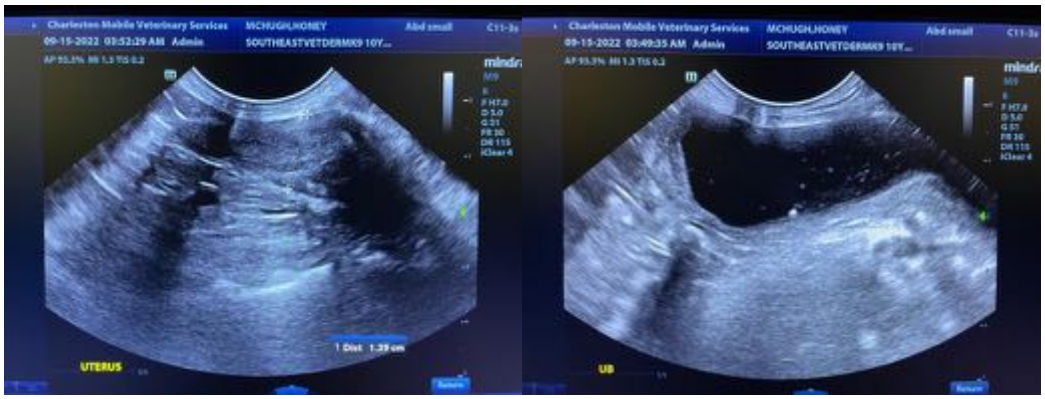

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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