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Clinical Sonography & Telecytology
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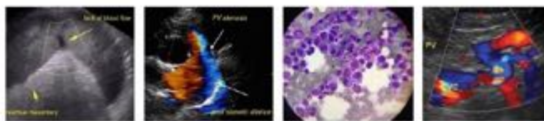


THE FOCAL ZONE
IMAGING PERFORMED BY
289-808-2608 info@thefocalzone.com

PATIENT

Missy Mahadeo

SPECIES

Canine

BREED

Pomeranian

SEX

Spayed female

AGE

9 years

WEIGHT

6.5 kg

INTERPRETED BY

Beth Johnson, DVM
DACVIM

IMAGING PERFORMED BY

Crystal Hill

HOSPITAL NAME

Sixteen Mile VC

REFERRING VET

Dr. Bile

INVOICE

42270

DATE

11/1/22

PRESENTING CLINICAL SIGNS

History: Persistent elevation in spec cPL for 4 to 5 months duration. Not acting clinical. Recheck gallbladder sludge since starting ursodiol. Has been on Vetoryl, Hepato Support, Ursodiol, Hydrocodone and Semintra. History of collapsing trachea.
Abnormal PE/Chem/CBC/UA Results: MCH low, MCHC low, Retics low, Potassium high, Na:K ratio low, Chloride low, Globulins high, AST low, ALT normal, ALP high, Lipase high, spec cPL high 776(0-200)

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

Urinary bladder is adequately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

Kidneys are overall normal in size and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased cortical echogenicity and mild loss of corticomedullary distinction, expected in this age patient. There is no evidence of pyelectasia or infarcts observed. Non-obstructive linear multifocal hyperechoic diverticular foci with acoustic shadowing are noted. The left kidney measured 4.69 cm and the right kidney measured 4.85 cm.

Adrenal Glands

Adrenal glands are plump/swollen in size. Normal shape and contour are maintained without evidence of capsular invasion. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal. The left adrenal gland measured 2.1 cm long, 0.6 cm at the cranial pole and 0.84 cm at the caudal pole. The right adrenal gland measured 1.6 cm long, 1.0 cm at the cranial pole and 0.7 cm at the caudal pole.

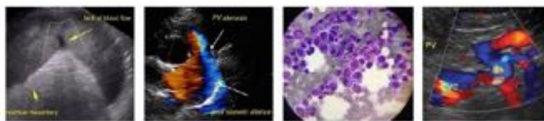
Spleen

Spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.

Liver

Liver is subjectively enlarged (swollen contour) without disruption of architecture. It has a normal homogenous echotexture. Parenchyma is diffusely hyperechoic characterized by less prominent than normal portal vein walls and increased echogenicity relative to the spleen and falciform fat. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is mildly overdistended with a moderate amount of non-dependent, mildly aggregated/inspissated sludge. Hypo to anechoic cystic areas are noted between the gallbladder sludge and luminal wall. The wall is otherwise smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion.



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Gastrointestinal

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

The visible small intestines are normal in wall thickness and layering. Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

Pancreas

The observed pancreas appears appropriately isoechoic to surrounding omental fat. Visible capsule is smooth and normal in contour. Visible pancreatic parenchyma is homogenous and unremarkable. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Free Abdomen

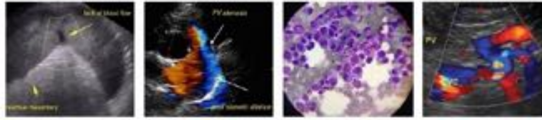
There is no evidence of peritoneal effusion or apparent lymphadenopathy noted in these images.

ULTRASONOGRAPHIC FINDINGS

- **Emerging mucocele –** Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. The non-dependent nature of this sludge combined with the cystic areas are suggestive, however, of possible emerging cystic mucosal hyperplasia or early gallbladder mucocele. The gallbladder debris is subjectively mildly improved and certainly not progressive compared to last year's ultrasound exam.
- **Hyperechoic hepatomegaly (canine)** – This appearance is non-specific and most consistent with a benign steroid (endocrine) or vacuolar hepatopathy or reactive or idiopathic hepatopathy. Inflammatory and/or infiltrative disease (such as round cell neoplasia) are also possible, but considered less likely.
- **Bilateral adrenomegaly –** consistent with adrenal hyperplasia secondary to pituitary dependent hyperadrenocorticism vs stress or normal variant. Interpret in combination with clinical signs of hyperadrenocorticism.
- **Age related renal** changes with non-obstructive dystrophic mineralization bilaterally.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given that this patient is clinically well and there is no ultrasonographic evidence of active or chronic pancreatitis at this time then no additional follow-up regarding the CPL is necessary at this time, just routine monitoring unless clinical signs change. However, given the reported hyperkalemia recommendations are to recheck an ACTH stimulation/cortisol level to assess the Vetoryl dose and/or discontinue Vetoryl and wait until clinical signs of hyperadrenocorticism return at which time can be restarted at a lower dose.



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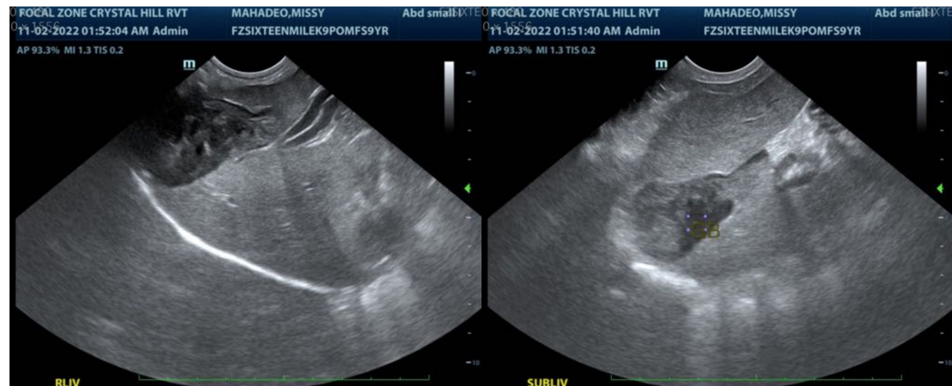

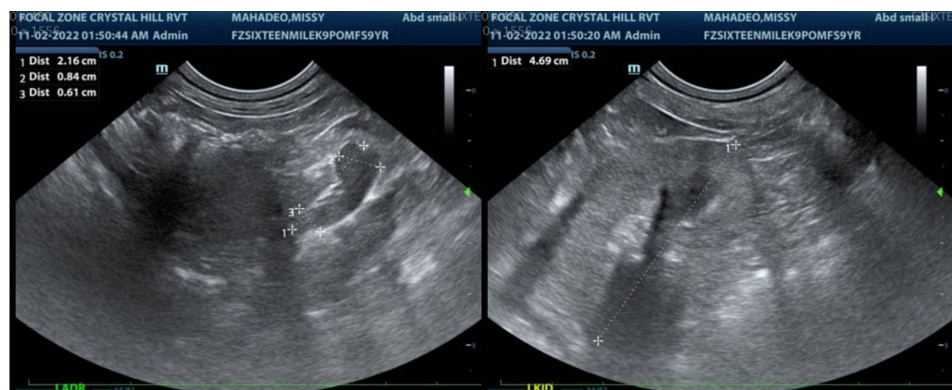

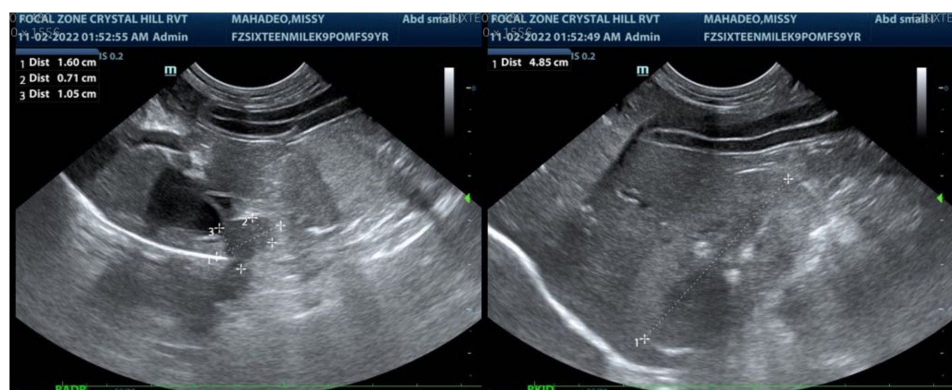

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Beth Johnson, DVM DACVIM

Beth.Johnson@SonoPath.com