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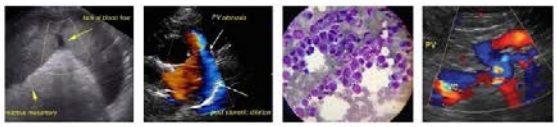

THE FOCAL ZONE
IMAGING PERFORMED BY
289-808-2608 info@thefocalzone.com

PATIENT

Levi Hendrikson

SPECIES

Canine

BREED

Chihuahua

SEX

Neutered Male

AGE

11 Years

WEIGHT

3.5 kg

INTERPRETED BY

Kathleen Sennello DVM, MS, Diplomate ACVIM (Small Animal Internal Medicine)

IMAGING PERFORMED BY

Crystal Hill

HOSPITAL NAME

BPH Burlington

REFERRING VET

Dr. Aziz

INVOICE

33255

DATE

12/3/21

PRESENTING CLINICAL SIGNS

urine issues, sporadically sometimes pees in sleep, occasionally has accidents inside. seems to sometimes be dribbling urine no blood in urine, drinking more than normal doing well otherwise. energy level good, eating good, no v/d How long has this change been present? 2-3 weeks QAR, severe d/calc, halitosis, Abd. palpation normal. No meds.
Abnormal PE/Chem/CBC/UA Results: ALB: 42g/L ALT: 405U/L GLOB: 46g/L TBIL: 24umol/L PCT: 0.64%

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic urine. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi.

The prostate is normal/borderline enlarged in size (0.94 cm) and shape for this neutered male dog. The parenchyma is homogenous and the external margins are smooth. The prostatic urethra appears normal with no evidence of irregularity, invasion, mass effect or calculi.

The right kidney has a normal shape and size (3.77 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The left kidney has a normal shape and size (3.51 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.32 cm. It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

The right adrenal gland is normal in size measuring 0.40 cm. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

Spleen

The spleen echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The spleen is subjectively normal in size with no focal parenchymal abnormalities. The blood flow through the hilus and splenic parenchyma appears normal.

Liver

The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is homogenous echotexture. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed.

The gall bladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are primarily anechoic. The cystic and common bile ducts are normal/not visible.

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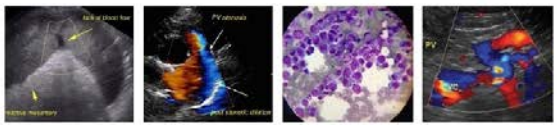

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Gastrointestinal

The stomach appears contains minimal luminal contents. It measures at a normal thickness of XX cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

Pancreas

The pancreas is normal and isoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

ULTRASONOGRAPHIC FINDINGS

- Borderline enlarged prostate – If this patient was neutered after puberty, this could be normal, as the prostate appears relatively normal in shape. If neutered at a young age, this could be enlarged, and you could consider a fine needle aspirate of the prostate to look for prostatic neoplasia.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The ultrasonographic changes on today's scan were relatively mild. Correlate the prostatic size with the age of neutering. If neutered later in life, this is likely an incidental finding.

Based on the blood work submitted, there is an elevated ALT value and very elevated bilirubin (is this patient icteric?). If so, I suspect underlying liver disease as a cause for the PU/PD. No focal lesions were observed in the liver or gallbladder, but there are many causes for elevated liver values that cannot be diagnosed by ultrasound alone.

- Consider close evaluation of history for possible toxic changes examine medications, diet, dietary indiscretion etc...
- Consider PCR on urine/serum for leptospirosis (if not on antibiotics)/serology if recent antibiotic history
- If not already done, consider pre and post prandial bile acids to evaluate liver function (this only needs to be done if the bilirubin is normal).
- If the ALP is significantly elevated relative to the ALT and symptoms consistent with cushings are present, consider adrenal function testing (ACTH stim)
- Consider Fine needle aspirate if round cell neoplasia is on your differentia list (25 g needle, normal coags)
- If no response to supportive care (denamarin, fluids, antibiotics,+/- ursodiol etc…) Consider liver biopsy with samples obtained for histopathology, culture, and copper levels.
- Additionally, there could be a small chance for a liver shunt or similar congenital issue, which might need advanced imaging (contrast CT scan) to better evaluate. This seems unlikely in this age of a pet, but cannot be definitively ruled out by ultrasound alone.

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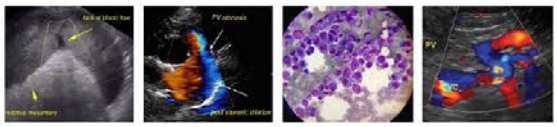

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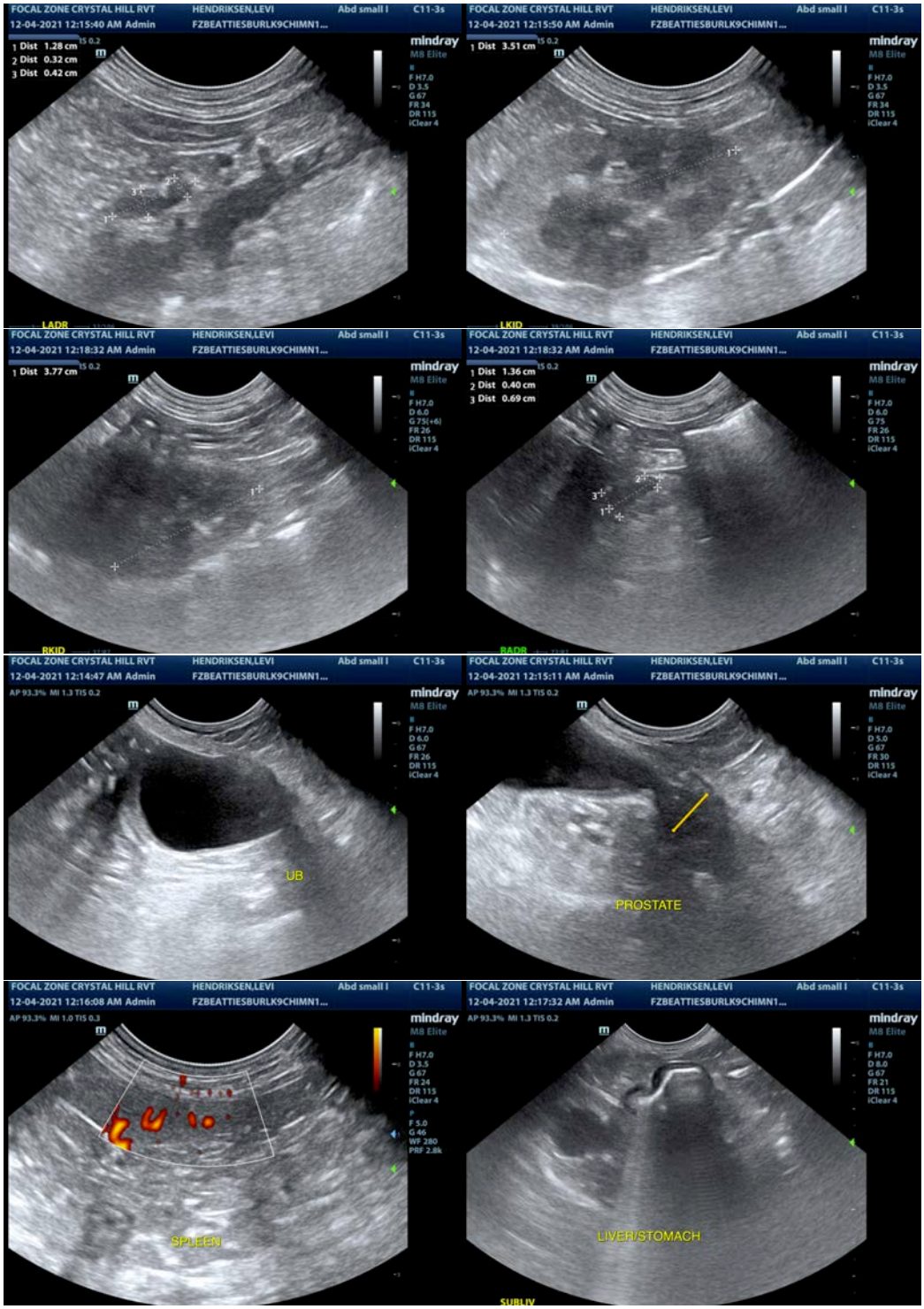

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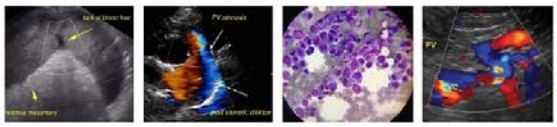

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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Kathleen Sennello DVM, MS, Diplomate ACVIM (Small Animal Internal Medicine)
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