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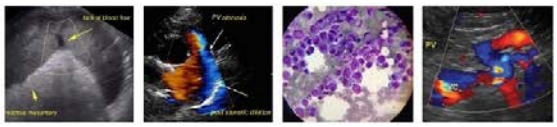


THE FOCAL ZONE
IMAGING PERFORMED BY
289-808-2608 info@thefocalzone.com

PATIENT

Bentley Jenkins

SPECIES

Canine

BREED

Sheltie x

SEX

Neutered Male

AGE

12 Years

WEIGHT

26.4 kg

INTERPRETED BY

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

IMAGING PERFORMED BY

Kelly Reschny

HOSPITAL NAME

Buck Animal Hospital

REFERRING VET

INVOICE

44316

DATE

1/18/23

PRESENTING CLINICAL SIGNS

Presents for history of soft stools, vomiting off and on for about 3 days, drinking a bit more than usual, straining with diarrhea. Low energy. History of abnormal liver values. Prostate seemed large. Has been on Metronidazole. Blood - cPL normal, WBCs high, Neuts high, Lymph low, Mono high, platelets low, MPV high, Globulins high TT4 low.

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 large, slightly irregular, and hyperechoic with pinpoint focal hyperechoic lesions most consistent with mineralization. There is soft tissue visualized within the prostatic urethra and with extension into the pre-prostatic urethra, most consistent with invasion into the urethra and al ikely prostatic carcinoma.

The left kidney has a normal shape and size (6.63 cm). There are numerous ill-defined hyperechoic focal areas within the renal cortex visualized. Adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (6.04 cm). There are numerous ill-defined hyperechoic focal areas within the renal cortex visualized. Adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal 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 borderline large measuring 1.0 cm at the caudal pole. 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.

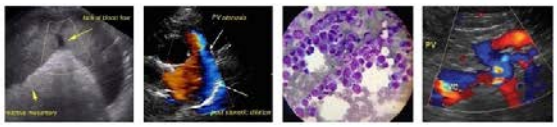
The right adrenal gland is borderline large measuring 0.94 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

Spleen

The spleen is large. The spleen echotexture is heterogenous and mottled, the splenic capsule is smooth with no irregularities. There appears to be some isoechoic to slightly hyperechoic soft tissue density material visualized within the splenic vessels at the level of the hilus. This branch is associated with the caudal portion of the spleen, which appears hypoechoic, irregular, and somewhat motheaten, possibly associated with infarction or a mass effect. This irregular area is 3.04 cm x 2.31 cm.

Liver

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



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

Gastrointestinal

The stomach contains moderate fluid. It measures at a normal thickness of <0.7cm 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. Jejunum wall measures 0.42 cm. 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 prominent and mottled compared to the surrounding isoechoic mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

Free Abdomen

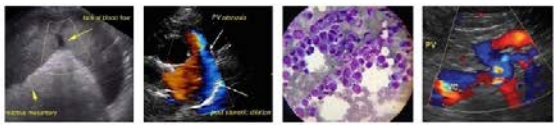
Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

Other

A brief view of the heart was submitted, revealing questionable scant pericardial effusion. This is not visible in all views, so it could be artifact. Consider a cardiac ultrasound.

ULTRASONOGRAPHIC FINDINGS

- Large, irregular, mineralized prostate with soft tissue invasion into the prostatic and pre-prostatic urethra – Findings are concerning for possible prostatic neoplasia. Recommend a fine needle aspirate.
- Splenic thrombus with irregular mixed echogenic area of the caudal spleen – The abnormal area of spleen could be consistent with a devitalized area of tissue or a mass effect. Consider a fine needle aspirate.
- Prominent, mottled pancreas – The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- Large, heterogeneous liver – The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy.
- Moderate fluid distention of the stomach



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- Borderline bilateral adrenomegaly – The bilateral adrenomegaly could be consistent with bilateral hyperplasia (e.g., secondary to pituitary-dependent hyperadrenocorticism), bilateral infiltrative neoplasia, inflammatory adrenal disease, other. Correlation with clinical findings is recommended.

- Questionable scant pericardial effusion – consider cardiac ultrasound.

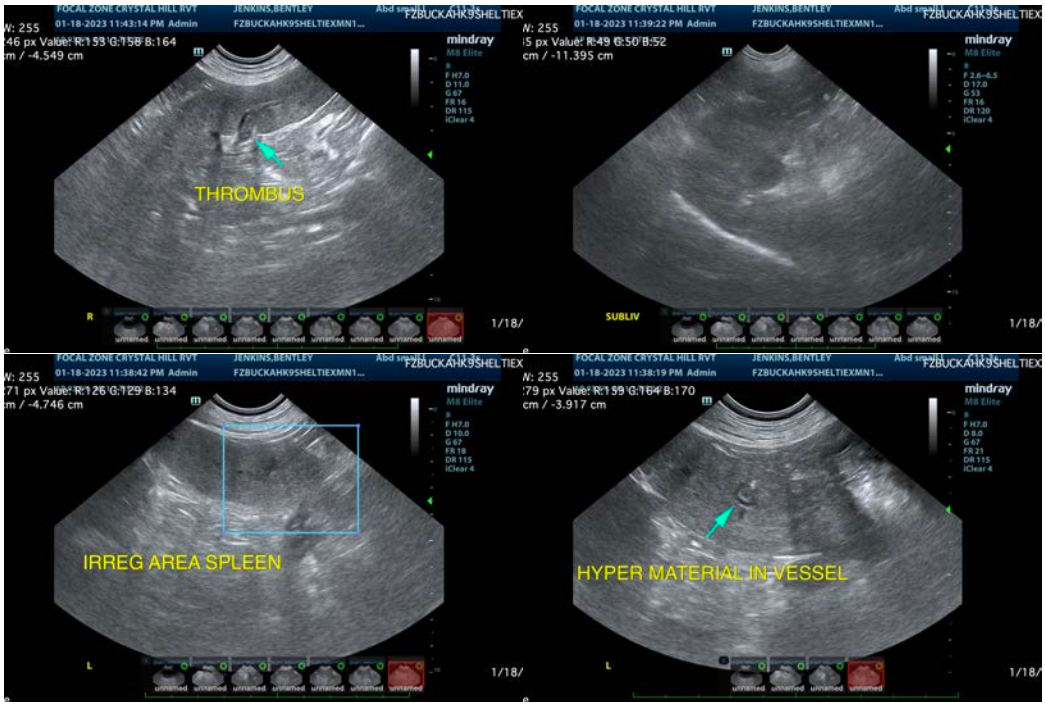
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The prostate is large, irregular, and mineralized. Additionally, there is evidence of soft tissue invasion into the prostatic urethra and pre-prostatic urethra. These characteristics would be most concerning for a prostatic carcinoma. Recommend a fine needle aspirate of the prostate.

There is a soft tissue density visualized in a caudal splenic vessel. Additionally, there is a somewhat ill-defined mixed echogenic area in the caudal spleen, which could be consistent with an abnormal devitalized/infarcted region or a focal mass lesion. Consider a fine needle aspirate of this region of the spleen. Additionally, consider starting Plavix once aspirates are obtained from the desired locations. Recommend close continued monitoring of the spleen. If this area is stable and remains relatively quiet, it could be monitored, but if it appears progressively abnormal, then surgical removal may be recommended. This would need to be considered in light of the concerns identified with the prostate.

The significance of the heterogeneous liver and the borderline bilateral adrenomegaly is uncertain. This could certainly be associated with the liver enzyme elevations reported (not sure if it's ALT, ALP, Bili, etc?). Additionally, if Cushing's disease seems likely, this could contribute to a hypercoagulable state.

Recommend three view thoracic radiographs to evaluate for possible concurrent thoracic disease/involvement.



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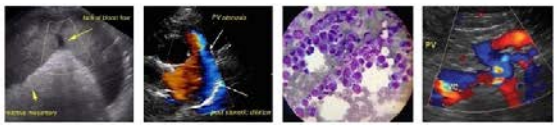

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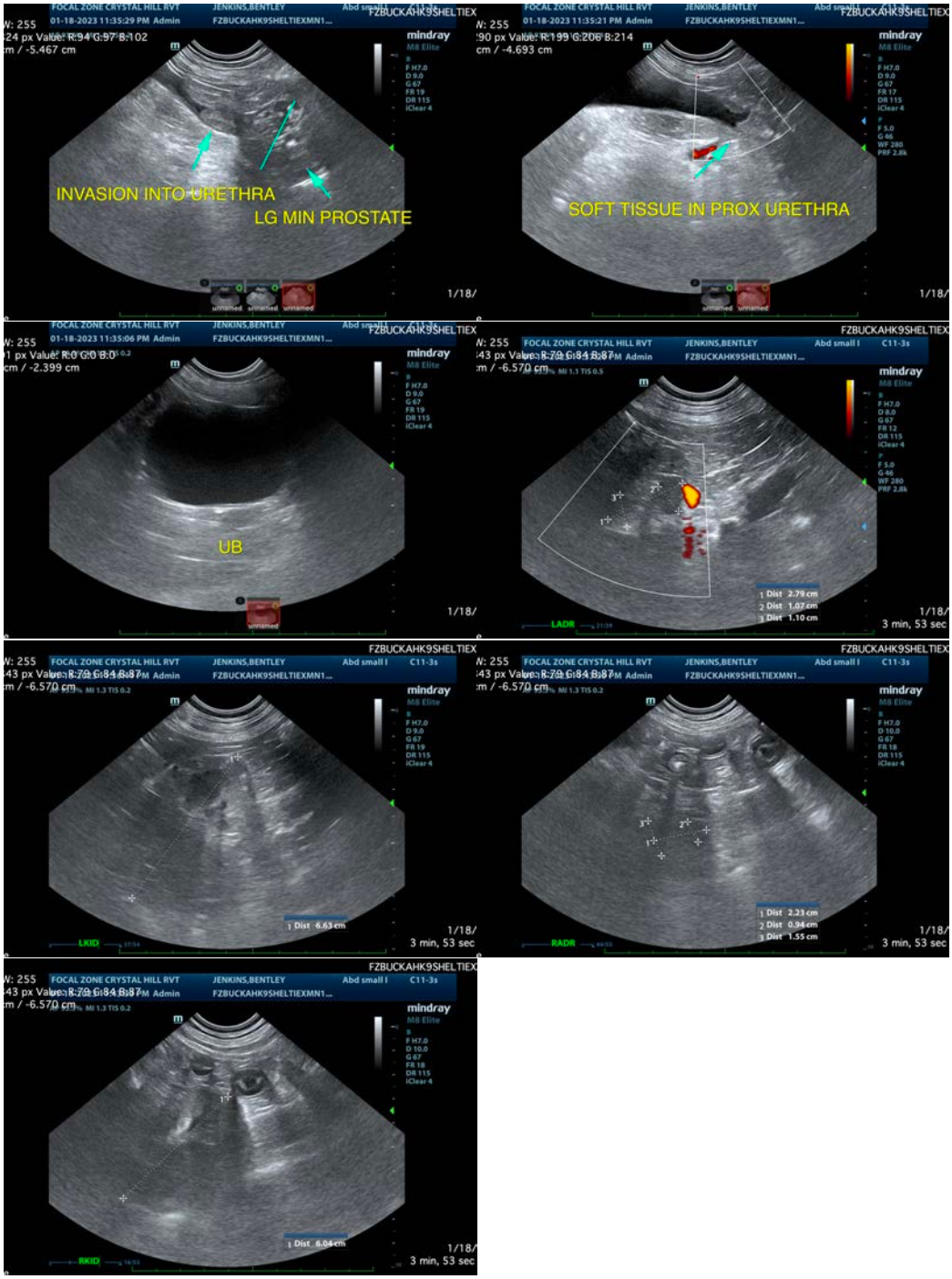

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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

kathleen.sennello@sonopath.com