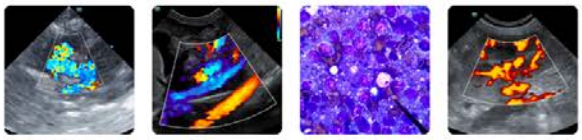


PATIENT

Boomer Drewes

SPECIES

Canine

BREED

Border Collie x

SEX

Neutered Male

AGE

12 Years 10 Months

WEIGHT

25kg

INTERPRETED BY

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

IMAGING PERFORMED BY

Loetitia Saint-Jacques, LVT

HOSPITAL NAME

Incline Veterinary Hospital

REFERRING VET

Kateryna Sovik, DVM

INVOICE

72908

DATE

1/1/26

PRESENTING CLINICAL SIGNS

Signs began approximately three weeks ago with lethargy. Condition worsened significantly two weeks ago. Vomiting began 8-9 days ago. Vomitus is described as yellow, foamy bile. Occasionally contains poorly chewed, undigested food. Last vomited yesterday (12/29); has not vomited today (12/30) . Severe hyporexia to anorexia for the past week. Has refused high-value foods like rotisserie chicken. Ate a small amount of hamburger at 11:30 AM today and has kept it down. Has not been observed defecating for approximately two days. Last observed stool was small and soft-formed, described as a 2-3/7 on a fecal scoring chart. Polydipsia is decreased; client reports he is not drinking much from his bowl but is eating snow when outside. Urination is still occurring. Client reports a 5 lb weight loss from his peak condition. Activity level has decreased significantly; was previously walking 2-3 miles daily but this has been scaled back due to inappetence. No wincing or signs of pain noted by client on palpation at home.

Abnormal PE/Chem/CBC/UA Results: PLT: 63 148 - 484 K/µL LOW MPV: 8.4 8.7 - 13.2 fL LOW PDW: 7.7 9.1 - 19.4 fL LOW PCT: 0.05 0.14 - 0.46 % LOW GLOB: 4.6 2.5 - 4.5 g/dL HIGH ALT: 152 10 - 125 U/L HIGH TBIL: 1.7 0.0 - 0.9 mg/dL HIGH

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 in size (0.95 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.

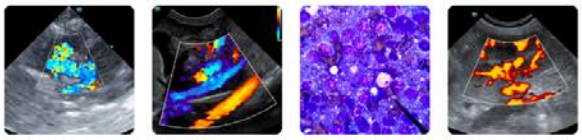
The left kidney has a normal shape and size (6.13 cm). There is a poorly defined hyperechoic region at the caudal pole measuring 0.69 cm x 1.88 cm, most consistent with an atypical infarct, although an early nodule or similar cannot be ruled out. Overall echogenicity is normal with adequate corticomedullary 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 or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (6.08 cm). Overall echogenicity is normal with 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 and irregular in appearance, measuring 0.61 cm at the cranial pole and 0.72 cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is abnormal in appearance in that there is a hyperechoic nodule in the caudal pole measuring 1.04 cm x 0.72 cm. No evidence of vascular invasion visualized.

The right adrenal gland is normal in size measuring 1.02 at the cranial pole and 0.67 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal



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vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

Spleen

The spleen is normal in size but irregular in shape. The blood flow through the hilus and splenic parenchyma appears normal. There are occasional ill-defined hypoechoic nodules in the parenchyma. Examples measure 0.59 cm and 0.83 cm. At the tail of the spleen there is a hypoechoic nodule visualized measuring 0.79 cm x 0.90 cm.

Liver

The liver is borderline large and irregular in shape. The visible portions of the vasculature and biliary tract appear normal. There is a large, irregular, hyperechoic/mixed echogenicity, cavitated/cystic appearing mass effect visualized on the left side of the liver measuring 5.23 cm x 5.79 cm. The mass effect is surrounded by inflamed tissue. Additionally, near the gallbladder on the right side of the liver there is a hypoechoic nodule measuring 1.63 cm x 1.8 cm, which deviates the hepatic margin.

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 mild and likely incidental at this time. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

The stomach contains minimal luminal contents. 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. Duodenum wall measures 0.45 cm. Jejunum wall measures 0.30 cm. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

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

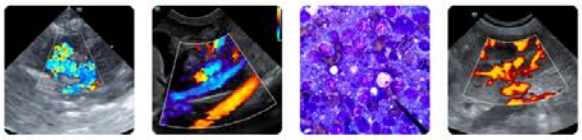
The pancreas is normal and isoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion. There is a prominent right iliac lymph node measuring 0.57 cm x 2.6 cm. The omentum is hyperechoic in the cranial abdomen, particularly around the cystic hepatic mass lesion.

Other

The right auricle and pericardium were visualized and were unremarkable. No obvious pathology is visualized. If cardiac function evaluation is desired a full echocardiogram is warranted.



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ULTRASONOGRAPHIC FINDINGS

- Hyperechoic nodule in the caudal pole of the left adrenal – The appearance is currently most consistent with a benign lesion such as an adenoma, focal hyperplasia, etc. An early neoplastic lesion cannot be ruled out.
- Irregular, hyperechoic region at the caudal pole of the left kidney – Findings could be consistent with a cortical infarct or similar. Recommend continued monitoring. An atypical neoplastic lesion cannot be ruled out.
- Poorly defined hypoechoic nodules visualized in the spleen with a more well-defined nodule at the tail of the spleen – There are several, non-cavitated, hypoechoic splenic nodules visualized. Differentials include lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to get a definitive diagnosis.
- Large, irregular, hyperechoic, heterogeneous, cystic/cavitated mass effect visualized associated with the left side of the liver, and a hypoechoic nodule that deviates the hepatic margins – The mass lesion is most consistent with a neoplastic lesion (carcinoma, adenoma, other). The cystic lesion could represent a true cyst, an abscess, area of necrosis, etc. The hypoechoic nodule is concerning for a possible metastatic lesion, although a benign nodule or other cannot be ruled out.
- Prominent iliac lymph node – Findings are most consistent with a highly reactive lymph node, although an early neoplastic lymph node cannot be ruled out.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There is a large cystic/cavitated mass effect visualized associated with the left side of the liver. This is surrounded by inflammation and is likely responsible for the majority of symptoms described. This could represent a benign or neoplastic lesion, and the cystic area could represent a benign cyst, an abscess, a necrotic region, etc. Consider a fine needle aspirate and a contrast CT scan of the lesion to evaluate for potential surgical removal. There is an additional hypoechoic lesion visualized in the periphery of the right side of the liver. This could represent a metastatic lesion or a concurrent benign or neoplastic lesion. CT evaluation will be helpful, looking for the possibility of additional smaller metastatic lesions. If a safe window for sampling is available, consider a fine needle aspirate of this hypoechoic nodule.

There is a small hyperechoic nodule at the caudal pole of the left adrenal. This could be incidental, although an early neoplastic or metastatic lesion cannot be ruled out. This area should be included with a contrast CT scan to further evaluate. If signs of Cushing's are present, you could consider adrenal function testing, although concurrent illness can make interpretation of test results difficult.

There is a hyperechoic lesion in the caudal cortical region of the left kidney. The significance of this lesion is uncertain. This could represent focal fibrosis, a previous infarct, etc. A distinct nodule or mass effect is not visualized but this cannot be ruled out. This area could be evaluated with the aforementioned CT scan.

There are several small hypoechoic nodules in the spleen. These could represent benign or neoplastic lesions. Consider a fine needle aspirate of a nodule at the tail of the spleen.

Consider a liver function test to further evaluate a potential cause of the elevation in bilirubin reported (hemolysis versus liver dysfunction, etc.).

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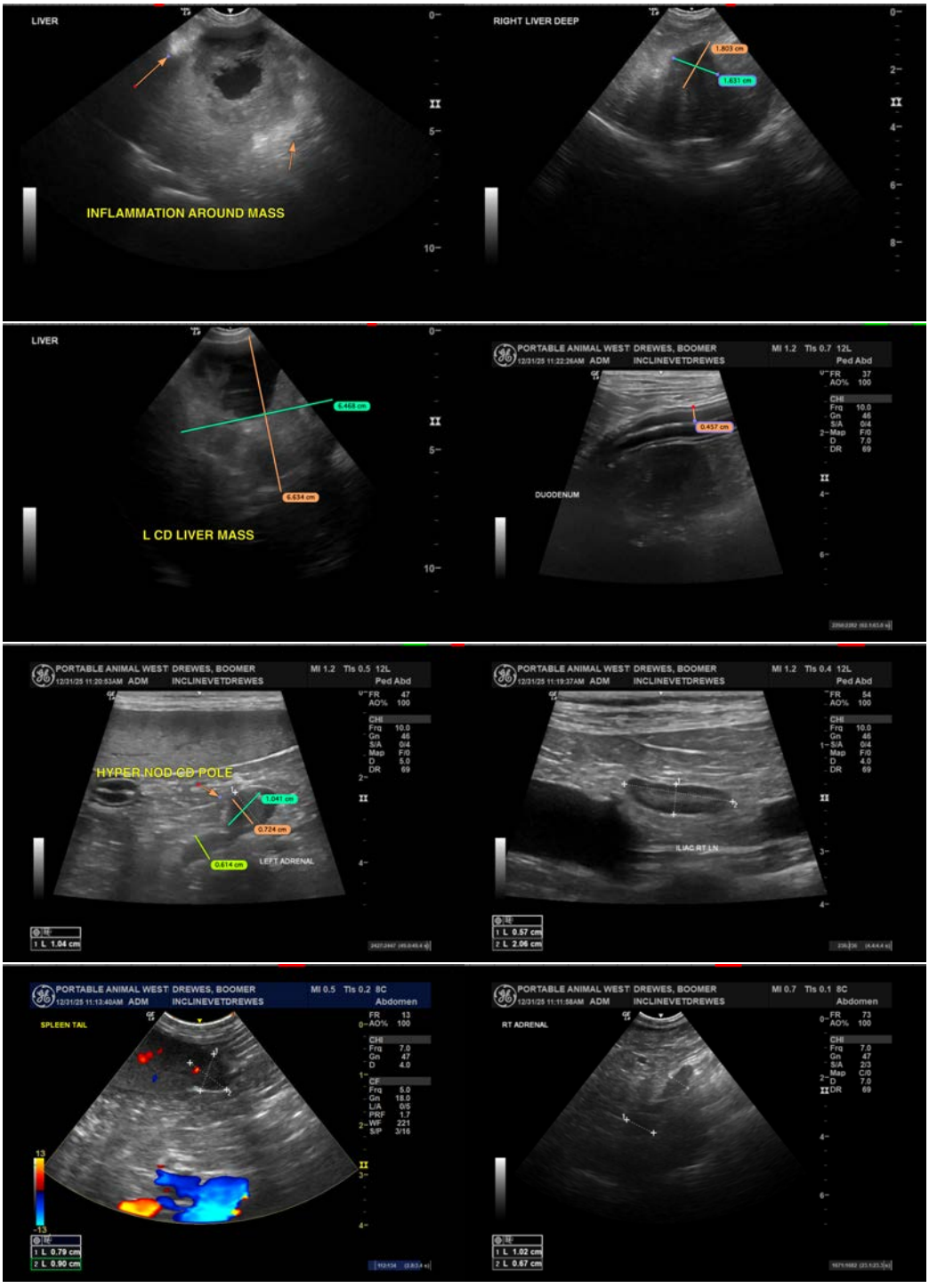
Recommend three view thoracic radiographs to evaluate for possible concurrent thoracic disease/involvement (disregard if this has already been done).



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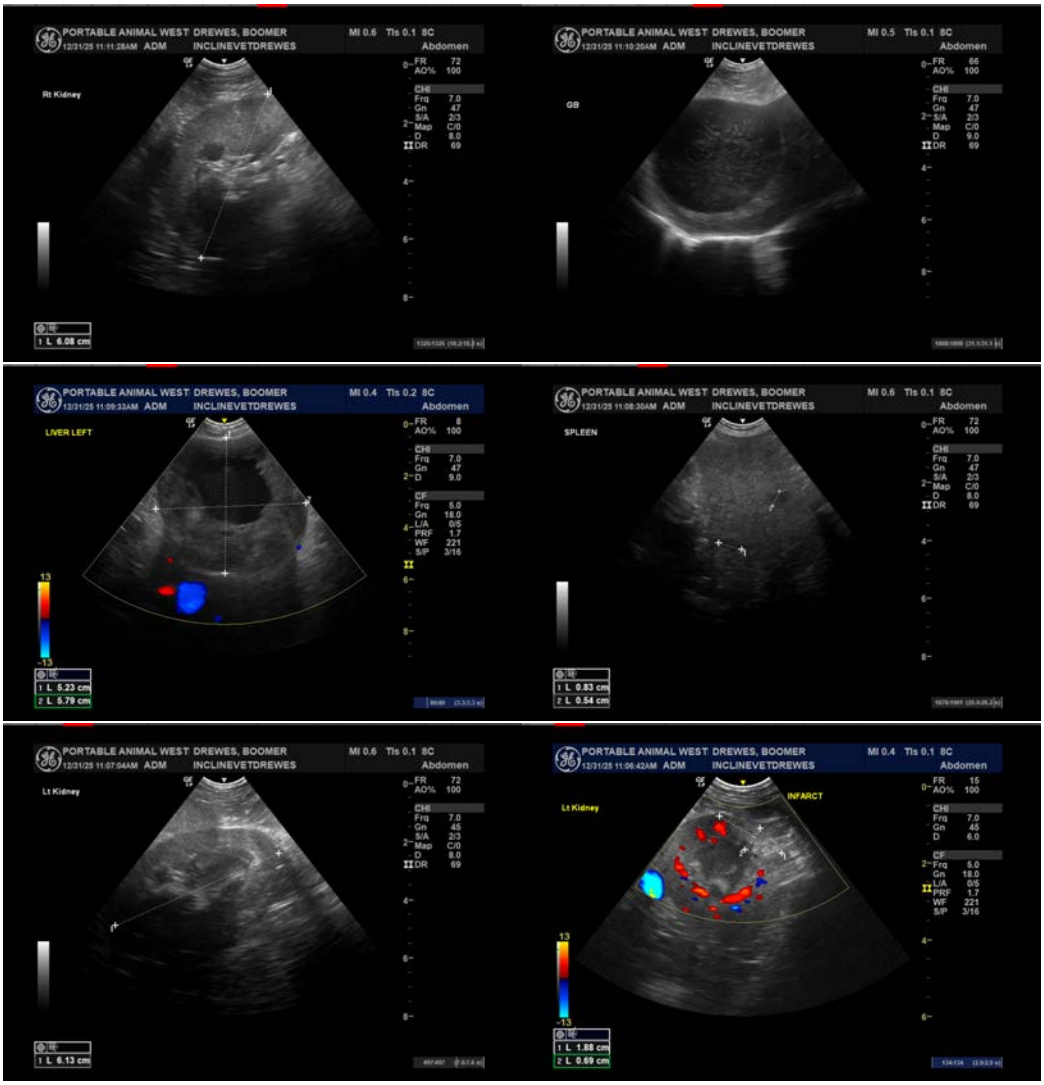

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)

info@sonopath.com