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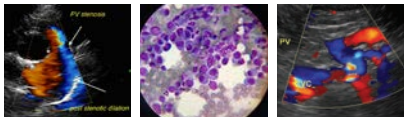

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Clinical Sonography & Telecytology
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DATE

7/19/22

PATIENT

Phoenix Banks

SPECIES

Canine

BREED

Husky X

SEX

Spayed Female

AGE

4/13/11

WEIGHT

54 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Stephanie Pearce RDCS, RVT

HOSPITAL NAME

Perry Hall AH

REFERRING VET

Dr. Miller

INVOICE

39649

PRESENTING CLINICAL SIGNS

Patient presents for evaluation of chronic weight loss, went to ER- they did not do labwork but high suspect abdominal mass noted on radiographs.

Current Medications: On Trazodone and Gabapentin for scan.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic urine. The Bladder wall appears largely normal, although towards the apex there is some irregular mucosal thickening noted, and the urinary bladder wall measures at 0.39 cm. The area of the trigone, ureteral papillae and proximal urethra appear normal with no evidence of calculi or mass effect. Findings are most consistent with cystitis or lack of urine distention. An early neoplastic process cannot be completely excluded.

The left kidney has a normal shape and size (7.08 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 right kidney has a normal shape and size (7.0 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 1.04 cm at the cranial pole, 0.62 cm at the caudal pole, and 3.61 cm in length. It is observed in its normal position cranial to the left renal artery. It is somewhat abnormal in appearance in that there is a hyperechoic, ill-defined region towards the cranial pole measuring 0.61 cm x 1.05 cm. This lesion does not deviate the normal shape of the adrenal gland, and there is no evidence of vascular invasion.

The right adrenal gland is normal in size measuring 1.0 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 subjectively normal in size. The spleen echotexture is heterogenous and mottled, the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. There is a cranial/mid abdominal, partially cystic/cavitated mass effect visualized measuring 8.16 cm x 11.86 cm. This lesion is suspected to arise from the spleen, although a small hepatic attachment cannot be completely ruled out.

Liver

The liver is subjectively normal in size, and 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. There is a large mid abdominal mass that is suspected to be splenic in origin, but a small hepatic attachment cannot be excluded as a possibility.

The gall bladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. There is a moderate amount of non-organized echogenic debris. 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. Jejunum wall measured 0.45 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 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 are prominent mesenteric lymph nodes visualized in the mid abdomen measuring 0.62, 0.80, and 0.68 cm. The omentum is largely normal, but appears slightly hyperechoic in the caudal abdomen.

Other

There is an area of hypoechoic/mixed echogenic tissue in the caudal abdomen measuring approximately 1.38 cm x 3.45 cm. This lesion appears dorsal to the urinary bladder, and in proximity to the colon. This could represent thickened, abnormal uterine stump, an abnormal lymph node, etc. There are appear to be some hyperechoic foci within the tissue, possibly indicating small punctate mineralizations. The surrounding mesentery appears mildly inflamed.

A brief view of the heart was submitted. No significant pericardial effusion was seen.

PRIMARY FINDINGS

- Mildly irregular urinary bladder wall – The bladder mucosal changes could be consistent with cystitis or artifactual due to lack of adequate luminal distension. Bladder neoplasia cannot be ruled out but is considered unlikely in this patient.

- Irregular, hyperechoic tissue visualized within the left adrenal gland – The significance of this lesion is unclear, as it does not deform the adrenal gland. This could be consistent with hyperplasia, inflammation, or an early neoplastic lesion (adenoma, carcinoma, pheochromocytoma, etc.).

- Mottled spleen – The diffuse splenic changes are non-specific and could be consistent with lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to get a definitive diagnosis. There is a cranial to mid abdominal mass effect that is suspected to be of splenic origin.

- Mixed echogenic/mildly cavitated cranial/mid abdominal mass – This mass effect is suspected to be

of splenic origin, but a small hepatic attachment cannot be excluded.

- 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.

- Mild mesenteric lymphadenopathy – The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.

SECONDARY FINDINGS

- Moderate gallbladder debris – The significance of the aggregated gallbladder sludge is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting.

- Moderate shadowing gastric ingesta – Correlate with feedings history and abdominal radiographs. If adequately fasted then consider such differentials as delayed gastric emptying or a partial outflow tract obstruction (none visualized).

- Hypoechoic, mixed echogenic mass effect with punctate mineralizations – This lesion is visualized dorsal to the urinary bladder in the region of the uterine stump. This could represent a stump granuloma, a mass effect, an abnormal lymph node, etc.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

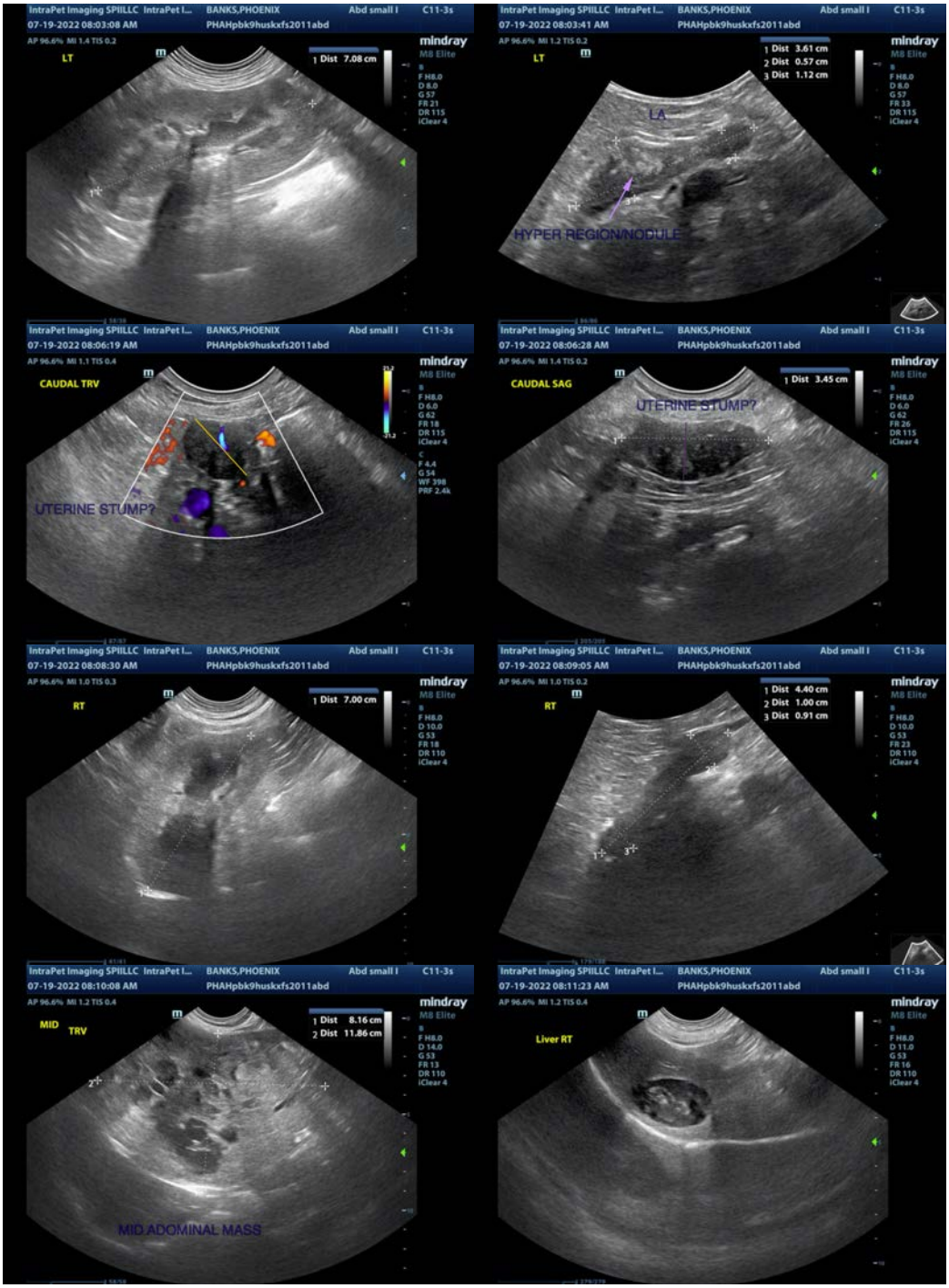
The primary lesion of concern is a large, mixed echogenic, partially cavitated abdominal mass. This is suspected to be of splenic origin due to its proximity and contact, but a direct attachment cannot be readily visualized. Alternately, this could be of hepatic origin, but that is thought less likely.

Consider three view thoracic radiographs to rule out concurrent thoracic disease/involvement.

Options moving forward include exploratory surgery with likely splenectomy, but the possibility of liver mass removal, etc. exists. This would have the potential to be both diagnostic and therapeutic, and the abnormal tissue in the region of the uterine stump could be evaluated and sampled as well. Alternately, a contrast CT scan of the abdomen could be considered, or a fine needle aspirate of the abdominal mass effect. This lesion could represent a benign or neoplastic mass effect.

The significance of the hyperechoic region in the left adrenal gland is unclear. At this time, the lesion does not appear to be deforming the shape of the adrenal gland at all, and given the other abdominal findings, a blood pressure evaluation and continued monitoring is warranted at this time.

There is some abnormal thickened vascular and possibly mineralized tissue that appears to be in the region dorsal to the urinary bladder. This could represent a uterine granuloma, hyperplasia, an abnormal lymph node, etc. Recommend a digital rectal exam to see if this lesion can be palpated, and if surgical evaluation of the abdominal mass effect is pursued, recommend visual and likely histologic evaluation of this lesion as well. Alternately, a contrast CT scan could be performed to get better detail regarding the extent and nature of this lesion.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2 Dist 0.57 cm
3 Dist 1.12 cm
LA
HYPER REGION/NODULE
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CAUDAL TRV
UTERINE STUMP?
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CAUDAL SAG
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RT
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3 Dist 0.91 cm
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MID TRV
1 Dist 8.16 cm
2 Dist 11.86 cm
MID ADOMINAL MASS
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Liver RT
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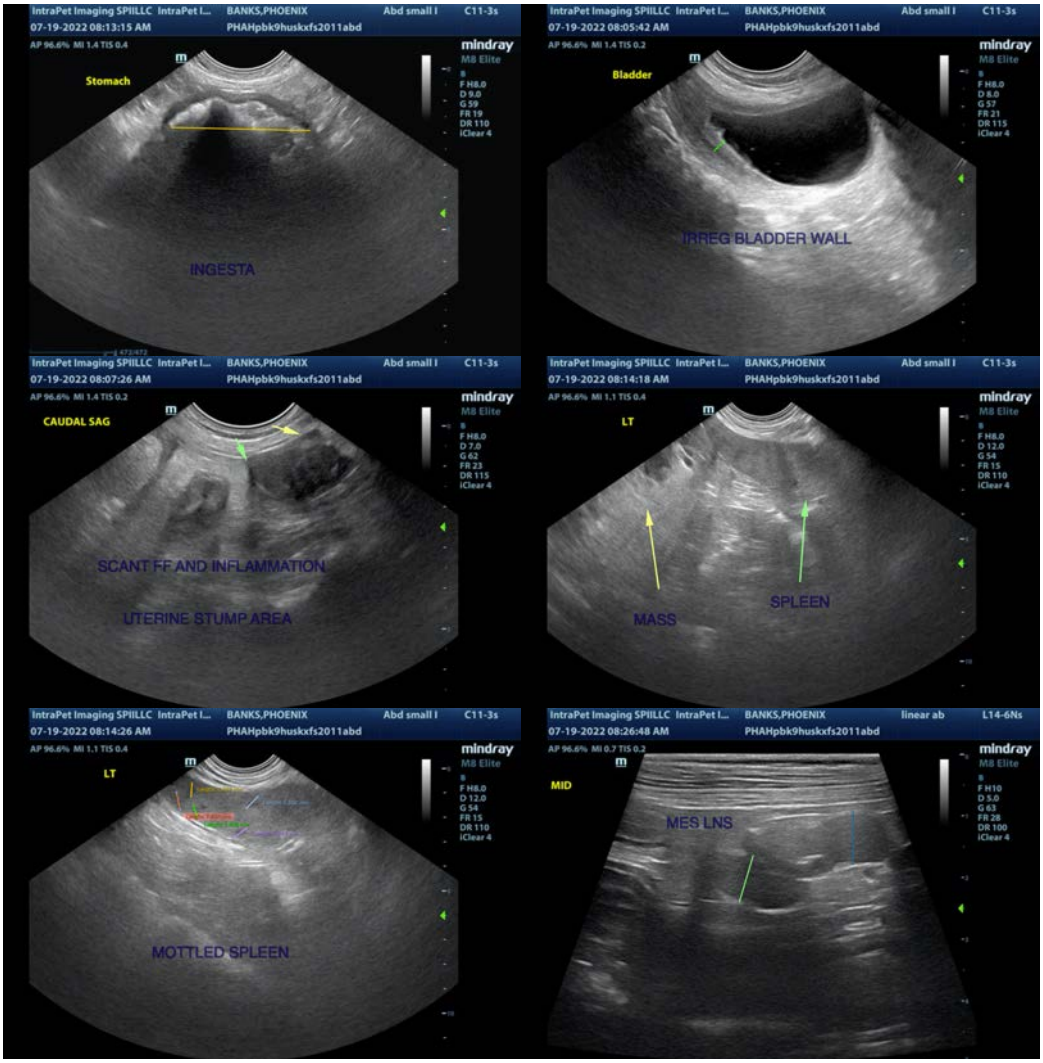
M8 Elite



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.

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