IMAGING PERFORMED BY

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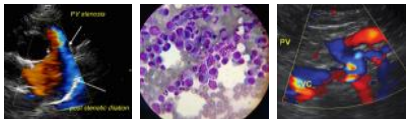

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DATE

4/28/22

PATIENT

Blizzard Bassett

SPECIES

Canine

BREED

Miniature Poodle

SEX

Neutered Male

AGE

1/2/02

WEIGHT

11.8 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Rachel Brilhart RDMS

HOSPITAL NAME

Banfield Towson

REFERRING VET

Dr. Culbertson

INVOICE

37266

PRESENTING CLINICAL SIGNS

Vomiting/diarrhea. Presented 3/31/22 for several days of this. CBC/IOF, Fecal, abd rads did not have any significant findings. Treated symptomatically and P initially improved but intermittent vomiting and anorexia has returned. PE - nsf

Current Medications: None listed.
Lab Results: BW and fecal NSF.
Radiographs: NSF.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: IV sedation.
Stat Report: Not requested.

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 (0.72 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 (3.73 cm). Overall echogenicity is slightly hyperechoic with poor 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 (3.49 cm). Overall echogenicity is slightly hyperechoic with poor 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 0.56 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 normal in size measuring 0.47 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, echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized.

Liver

The liver is large in size, and hypoechoic 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 are numerous ill-defined, hypoechoic nodules visualized within the parenchyma. One such nodule is measured at 1.18 cm.

The gall bladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. There is primarily non-organized echogenic debris, but there are very early striations visible in the periphery, consistent with very, very early development of mucocele. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

The stomach is dilated with a large amount of fluid and irregular shadowing material most consistent with normal ingesta and gas. 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 layering 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 uniform diameter with minimal fluid distension. Wall appears subjectively, mildly increased. Bowel loops follow a typical curvilinear path with distinct wall layering. Jejunum wall measured 0.46 cm. Duodenum wall measured 0.55 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.

PRIMARY FINDINGS

- Hypoechoic, heterogeneous liver with ill-defined, hypoechoic nodules – The diffuse hepatic changes are non-specific and can be seen with vacuolar hepatopathy, reactive change, nodular hyperplasia or, less likely, inflammatory/immune-mediated disease, infiltrative neoplasia, or other hepatopathy.

- Moderate gallbladder debris with very early organization of the sludge – findings are consistent with a very early mucocele formation.

- Hard shadowing material visualized within the gastric lumen – 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).

- Mildly thickened small intestine – The mild small intestinal wall changes may be a normal variant in this patient or could be consistent with an inflammatory process (e.g., inflammatory bowel disease).

SECONDARY FINDINGS

- Decreased corticomedullary distinction in both kidneys – The bilateral renal findings are consistent with age-related change.

- 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.

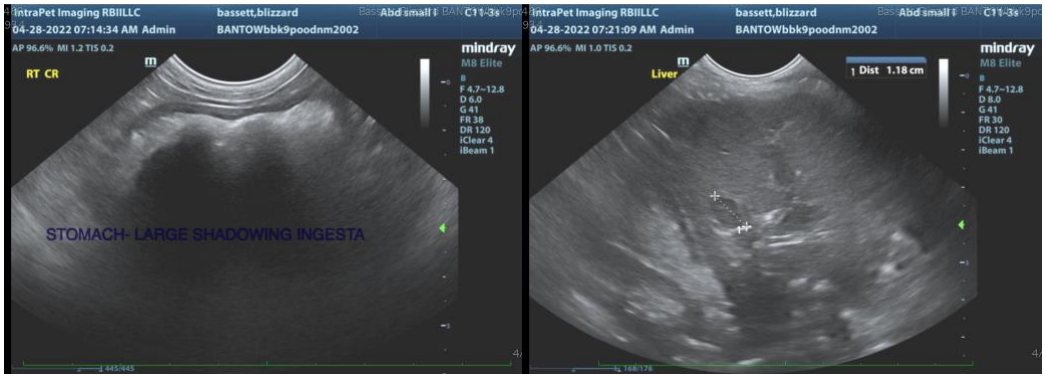
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

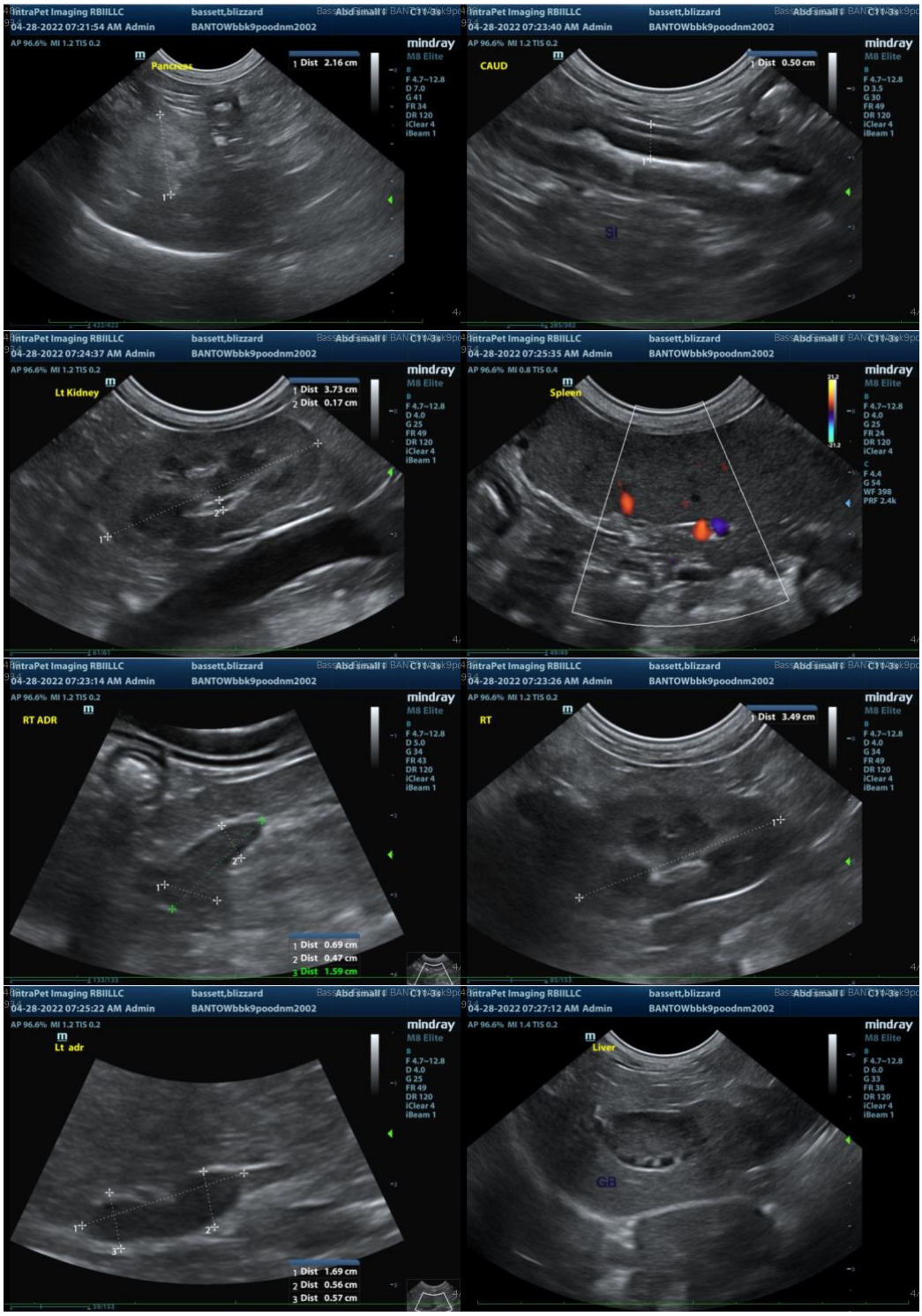
The stomach is severely dilated on today's scan with hard shadowing material/ingesta. This impairs the ability to visualize the pylorus clearly and some other areas of the abdomen (pancreas, etc.). Correlate with feeding history. The stomach appears dilated and ingesta filled on the radiographs as well as there being a small linear foreign body (small bit of wire?), which I suspect is incidental. This could be secondary to delayed gastric emptying, a recent meal, or could represent ingested foreign material. Consider following with serial radiographs, even a small bit of ingested barium to highlight the ingesta could be helpful. The small intestine does appear thickened for this small of a dog, and the pancreas is somewhat prominent. You could consider a GI panel to Texas A&M for a qualitative PLI, TLI, cobalamin and folate to get more information regarding the pancreas and small intestine.

- Consider a novel protein/hydrolyzed protein prescription diet.
- Consider the aforementioned GI panel.
- Consider empirical treatment for gastroenteritis including promotility medications(?) such as Metoclopramide while initiating a new diet. If a diet change does not cause clinical improvement, then GI biopsies will likely be necessary.
- Consider three view thoracic radiographs to rule out concurrent thoracic disease/involvement.

The liver is somewhat heterogeneous with some ill-defined nodules. These nodules trend towards the appearance of benign nodules, but unfortunately a neoplastic change cannot be ruled out definitely. If liver enzyme elevations are not present, then I would consider continued monitoring. If they are present, then I would consider a liver function test and a fine needle aspirate of the liver.

The gallbladder has a large amount of debris within it, and there is very early mucosal striations, indicating the first steps to try and develop into a mucocele. You could consider continued monitoring or early Ursodiol intervention.





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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