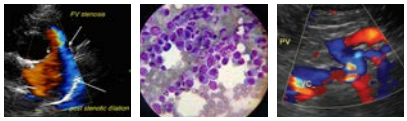
IMAGING PERFORMED BY

IntraPet.com



SonoPath

Clinical Sonography & Telecytology

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DATE

10/26/22

PATIENT

Boo Boo Salemi

SPECIES

Canine

BREED

Mixed

SEX

Neutered Male

AGE

11/19/10

WEIGHT

82.6 Pounds

INTERPRETED BY

Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY

Stephanie Warga RDCS, RVT

HOSPITAL NAME

Parkville AH

REFERRING VET

Dr. Mangini

INVOICE

42332

PRESENTING CLINICAL SIGNS

Chronic pancreatitis, stage 2 kidney disease. Continued pain- unknown origin.

Current Medications: Gabapentin 300mg BID.
Lab Results: Responsive reticulocytosis, elevation of SDMA 17, BUN 43, Lipase 2273, Abnormal Snap CPL.
UA- USG 1,022, protein 500, quiet sediment.
Radiographs: LS spondylosis and one abnormal mid GI area of hyperechoic area.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Requested/Approved.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

Prostate is normal in size, echotexture and echogenicity for a neutered male.

Kidneys are normal in size but bilaterally irregular and diffusely echogenic with decreased corticomedullary distinction and poor visualization of internal architecture. There is no pyelectasia noted and no mineral is observed. The right kidney measures 6.78 cm and the left kidney measures 6.44 cm.

Adrenal Glands

Adrenal glands are largely normal in size, shape and contour. Some parenchymal heterogenicity is present without concerning capsular distortion. These changes are likely normal for this age but should be monitored if there is any suspicion of adrenal disease. The left adrenal gland measures 3.46 cm long x 0.96 cm at the cranial pole and 0.91 cm at the caudal pole. The right adrenal gland measures 3.2 cm long x 0.55 cm at the cranial pole and 0.95 cm at the caudal pole).

Spleen

The spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.

Liver

Liver is subjectively enlarged with mildly irregular margins. Parenchyma is heterogenous characterized by multiple poorly defined hypoechoic nodules within otherwise hyperechoic liver parenchyma. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is moderately distended with anechoic bile as well as suspended and gravity dependent echogenic debris. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

Gastrointestinal

The stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) and layering. The lumen of the stomach is empty, except for in the pylorus, where there is an echogenic interface with acoustic shadowing that appears strong in transverse view, but more dirty and progressive in longitudinal view, and appears to extend into the proximal duodenum.. Pyloric outflow tract appears patent.

The visible small intestines are normal in wall thickness and layering (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty, except for in the mid abdomen, where there is a similar appearing echogenic interface within a small bowel loop that appears to have a strong acoustic shadow in transverse view, but that is less obvious in longitudinal sagittal view, where the shadow appears more progressive, as may be seen with gas and granular debris, or even a hairball density. This bowel loop and the pylorus into the duodenum may all be connected, but that cannot be definitively determined based on these images at this time. There is no fluid distention or obvious obstructive pattern noted.

The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

Pancreas

The pancreatic parenchyma is appropriately isoechoic to surrounding tissue. Visible capsule is smooth and normal in contour. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Free Abdomen

There is no evidence of free peritoneal effusion noted in these images.

There is no apparent lymphadenopathy noted in these images.

PRIMARY FINDINGS

- Possible gastric and small bowel foreign material without an obvious obstructive pattern to support full obstruction or even foreign material definitively. Atypical appearing ingesta/gas or even granular sand/dirt/grit debris could also cause similar appearing signs.

- **Chronic Kidney Disease –** This appearance of the kidneys is consistent with chronic kidney disease such as chronic glomerular or interstitial nephritis, chronic pyelonephritis, etc.

- **Heterogenous Liver –** These changes are most consistent with benign processes such as nodular hyperplasia, steroid (vacuolar) hepatopathy, extramedullary hematopoiesis or possibly chronic inflammatory disease and less commonly infiltrative round cell or metastatic neoplasia.

- **Gallbladder debris -** Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. Echogenic bile is most commonly an incidental finding in dogs and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.

SECONDARY FINDINGS

- Age related adrenal gland changes

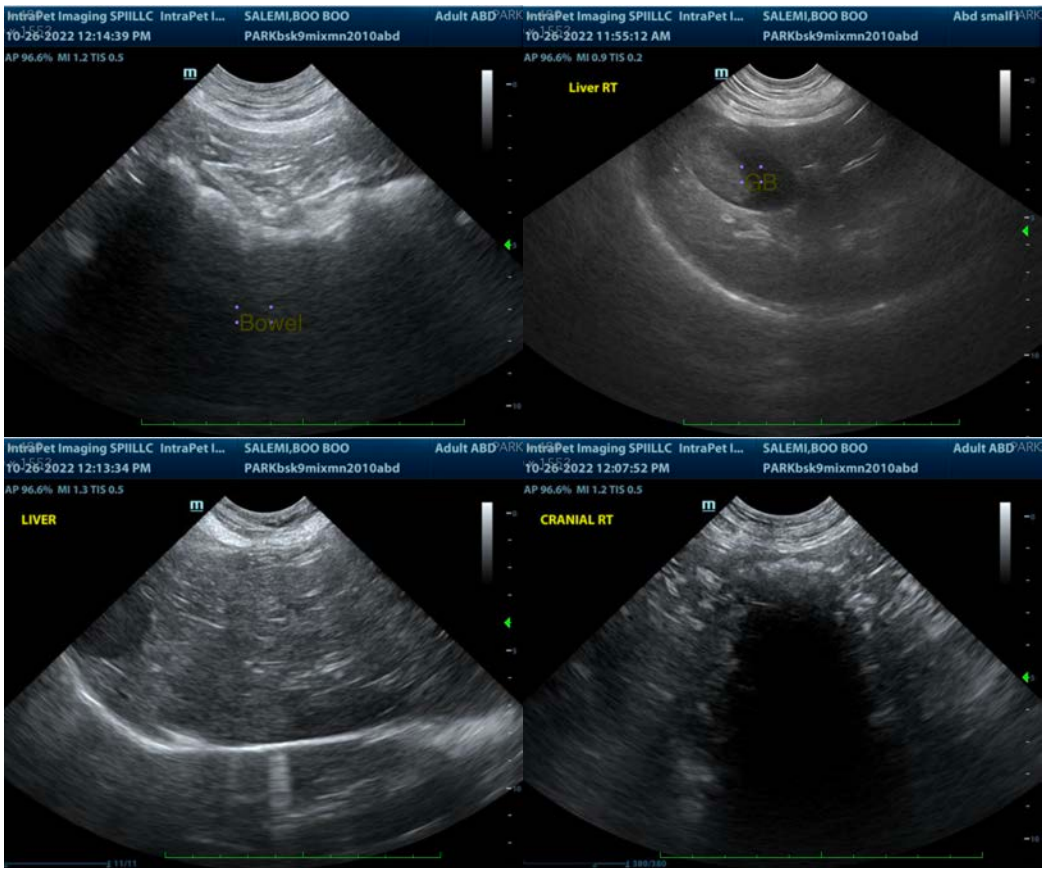
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

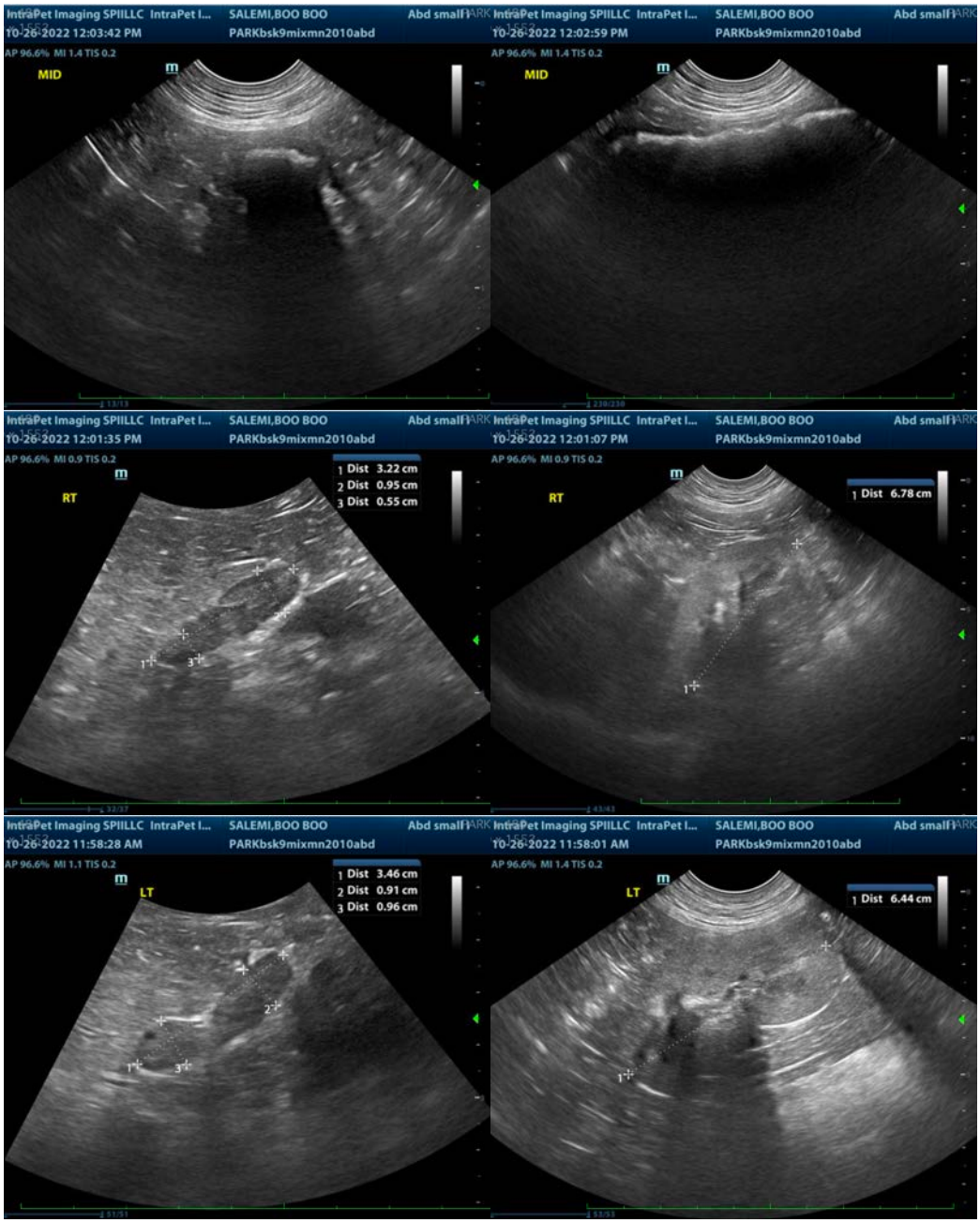
Recommendations for this patient depend partially on the clinical signs. If pain is the primary presenting complaint, recommendations are to investigate for sources of possible referred pain to the abdomen, such as cervical, spinal, orthopedic, etc.. With just pain, and no supporting gastrointestinal signs, a complete foreign body obstruction is considered less likely. However, if the primary clinical signs are GI, including vomiting and abdominal pain, etc., that lends more support to possible obstruction.

Recommendations include supportive/symptomatic medical management of the clinical signs and fasting for another 12-24 hours with recheck imaging (x-rays and/or ultrasound) at that time, or recheck imaging sooner if clinical signs progress.

A more aggressive approach would be an exploratory laparotomy more immediately to investigate and rule out foreign material more definitively. However, without gastrointestinal signs and without an obstructive pattern, owners should be prepared for a possible negative explore.

Unrelated, given this patient's history of chronic kidney disease, a blood pressure is recommended if not recently evaluated.





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.

Beth Johnson, DVM, DACVIM
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