IMAGING PERFORMED BY

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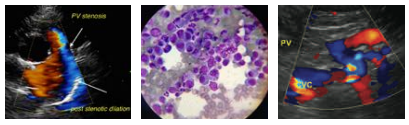

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
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DATE
2/8/22

PATIENT
Stella Howell

SPECIES
Canine

BREED
French Bulldog

SEX
Intact female

AGE
12/28/20

WEIGHT
23.5 lbs

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

HOSPITAL NAME
Animal Emergency Hospital

REFERRING VET
Dr. Nacke-Horney

INVOICE
95881

PRESENTING CLINICAL SIGNS

History: Presenting Complaint: Referral for Continued Care; Foreign Body Date: 02-07-2022 Notes: This AM: making gasping sounds - can be heard when excited - had her face down with her bum in the air in pray posture - 1 episode of vomiting. Ate normally last night - typically fed only at night so was not fed today - unsure if she drank today.
Yesterday did not seem like herself Owner noted concerns that she may have gotten one of the yellow nerf balls. Presented to rdvm: -
appeared to be in mild respiratory distress with crackles in the lungs - meds administered: butorphanol 2ml, midazolam 0.6 ml, Lasix 1 ml -
Rads: *images not sent over* - Radiologist report: Increased soft tissue opacity involving the caudal mediastinum in the region of the distal
esophagus, esophagus moderately distended with gas at mid thorax, bronchial pattern in the lungs, potential for superimposed distended
intestinal loops vs FB - ddx: esophageal FB vs gastroesophageal intussusception vs esophageal mass vs para-esophageal mediastinal mass - recommended rechecking abdominal rads to further rule out FB.
Assessment: Referral for concern for esophageal FB. Plan: Reviewed history and physical exam. Reviewed radiologist report and ddx: esophageal FB s gastroesophageal intussusception vs esophageal mass vs para-esophageal mediastinal mass - explained that if not a FB or not able to remove FB referral may be warranted - in the meantime plan to provide supportive care. Discussed concerns mention in radiologist report for changes in the intestines - discussed rechecking abdominal rads to ensure things are moving through appropriately. Discussed evaluation in Tbil - discussed ddx: pre-hepatic vs hepatic vs post-hepatic vs other - plan to recheck to ensure it is normalizing. Recommended hospitalization, repeat Tbil, repeat abdominal rads, sedation and endoscopy, fluids, supportive care as needed – discussed that if our scope is not working appropriately may need to be referred elsewhere - if scope is working and we have concerns for one of the other differentials referral may be warranted - we will keep in touch to let you know if the scope can be performed - owners agreed to plan
Scoped patient, esophageal irritation was noted but no obvious foreign material or intussusception was observed. The endoscope was fed
into the stomach and flecks of suspected bloody discharge were noted with no obvious foreign material. After patient recovered from anesthesia, began having an episode of vomiting and shortly afterwards became cyanotic. Took xray, changes concerning with Xray for aspiration.
Current Medications: Furosemide, Cerenia, Unasyn, Buprenex, Pantoprazole.
Lab Results: TS 8.2 (5.0-8.0). TP 8.9, Glob 4.7, Tbil 3.1, Retic 126.6, Baso 0.16.
Radiographs: Improvement noted when compared to rdvm rads
Date of Previous IntraPet Ultrasound: No previous IntraPet scans.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.
Imaging Performed By: Rachel Brilhart, RDMS.

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 left kidney has a normal shape and size (4.05 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 (4.35 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 0.63 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 0.6 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 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. No focal nodules or cystic lesions are observed. The gallbladder lumen is moderately distended. The wall of the gallbladder is not thickened and has a smooth mucosal surface. Luminal contents are primarily anechoic. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

The stomach is minimally distended with ingesta and shadowing material. The gastric wall appears to have normal layering and some areas appear subjectively mildly thickened at 0.45 cm. There is no evidence of an obstruction or focal mass lesion.

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. The duodenum measured as normal and the jejunum measured as normal (0.26 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 large and hypoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is evidence of regional mesenteric inflammation. This is consistent with mild pancreatitis.

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
The uterus and ovaries are visualized and appear to be within normal limits. The left ovary measures 1.11 cm and the right ovary measures 0.76 cm.

ULTRASONOGRAPHIC FINDINGS
PRIMARY FINDINGS:

- Prominent, hypoechoic pancreas with mildly hyperechoic surrounding mesentery. The pancreatic changes are most consistent with mild pancreatitis/pancreatic infiltration. I recommend fPLI testing and continued monitoring for improvement or possible development of a pancreatic abscess. Consider FNA if not improving.

- Mildly heterogenous/hypoechoic 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.

- Subjective gastric wall thickening. The findings are subtle and likely consistent with gastritis.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS
No significant focal small intestinal lesions are visualized to explain the vomiting and GI signs reported. The pancreas does appear prominent and could be consistent with mild pancreatitis or a previous episode of pancreatitis.

- Consider a GI panel to Texas A&M for a qualitative PLI, TLI, cobalamin and folate to further evaluate the pancreas and for concurrent small intestinal disease.

I recommend treatment for pancreatitis and acute gastroenteritis. A component of esophagitis could also be at work.

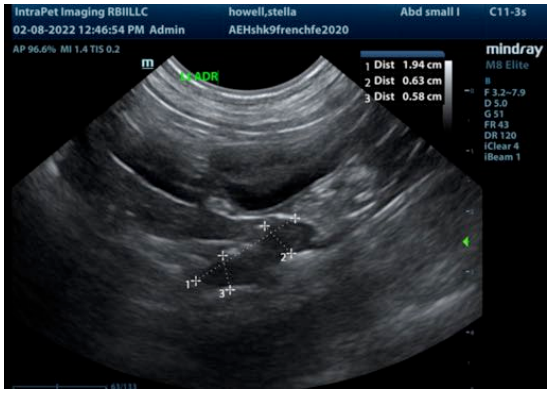
- Consider screening for Addison's disease.

- Consider liver function test to rule out the unlikely possibility of an undiagnosed portosystemic shunt.

- Recommend rechecking bilirubin levels. I suspect this is a spurious lab result, but continued monitoring is warranted.

In this breed it can be difficult to determine what is truly aspiration pneumonia versus upper airway disease congestion, etc. If this patient recovers uneventfully you may consider GI biopsies and airway surgery at the time of spay if indicated.

If symptoms are not responding to therapy then you can consider surgical evaluation for any foreign material and obtaining GI biopsies.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howell,stella
Abd small l
C11-3s
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AEHshk9frenchfe2020
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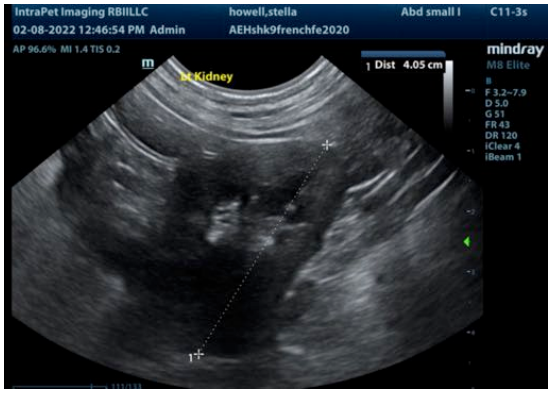
LADR
1 Dist 1.94 cm
2 Dist 0.63 cm
3 Dist 0.58 cm
mindray
M8 Elite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Lt Kidney
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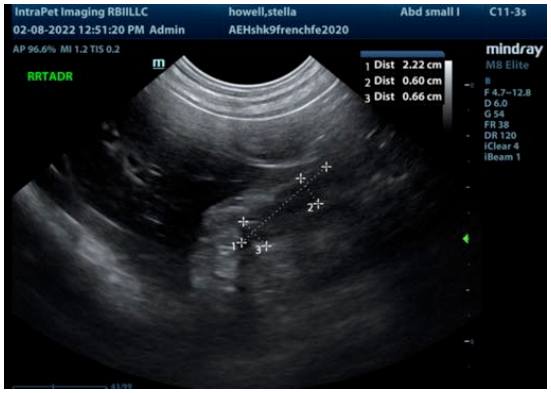
mindray
M8 Elite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C11-3s
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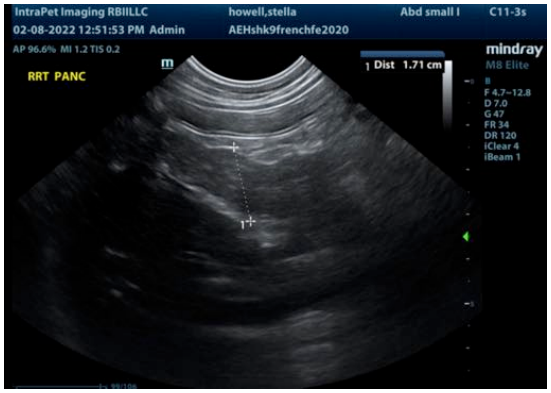
RRTADR
1 Dist 2.22 cm
2 Dist 0.60 cm
3 Dist 0.66 cm
mindray
M8 Elite


IntraPet Imaging RBIILLC
howell,stella
Abd small l
C11-3s
02-08-2022 12:53:49 PM Admin
AEHshk9frenchfe2020
AP 96.6% MI 1.2 TIS 0.2
RT ov
1 Dist 1.55 cm
2 Dist 0.76 cm
mindray
M8 Elite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Abd small l
C11-3s
02-08-2022 12:51:53 PM Admin
AEHshk9frenchfe2020
AP 96.6% MI 1.2 TIS 0.2
RRT PANC
1 Dist 1.71 cm
mindray
M8 Elite


IntraPet Imaging RBIILLC
howell,stella
Abd small l
C11-3s
02-08-2022 12:50:45 PM Admin
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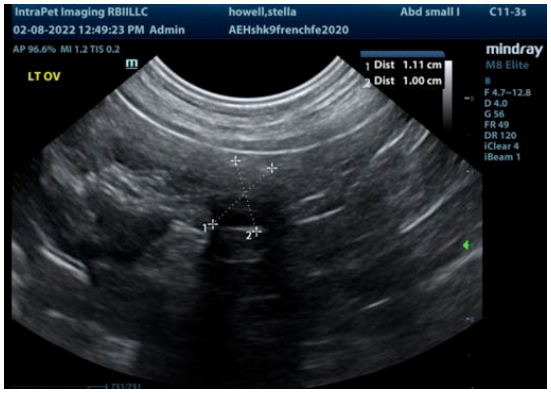
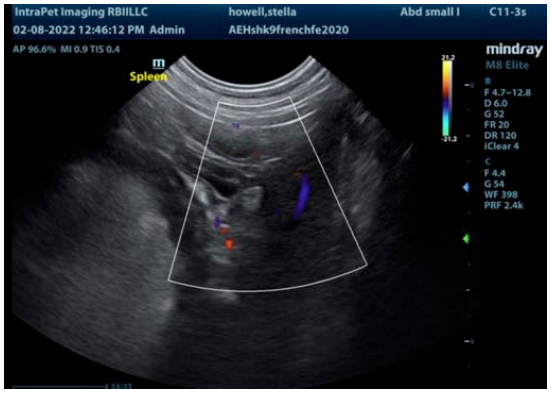
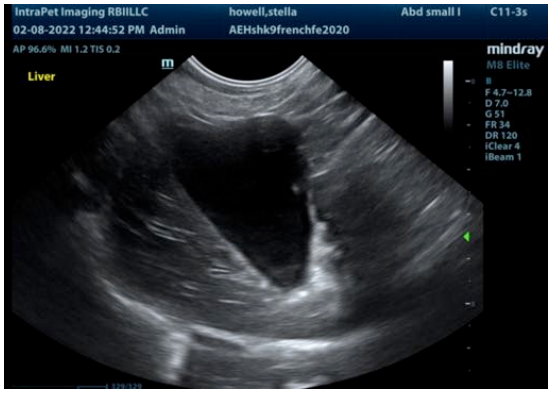
AP 96.6% MI 1.2 TIS 0.2
RRT
1 Dist 4.35 cm
mindray
M8 Elite







The information and recommendations provided are based on the images presented by the referring veterinarian. 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