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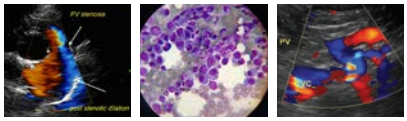

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DATE

6/7/22

PATIENT

Mark Watney Willenbrink

SPECIES

Feline

BREED

DSH

SEX

Intact Male

AGE

6/1/21

WEIGHT

1.7 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Rachel Brilhart RDMS

HOSPITAL NAME

Animal Emergency Hospital

REFERRING VET

Dr. King

INVOICE

38448

PRESENTING CLINICAL SIGNS

Always been very small, has had much endocrine testing, has figured out he is congenital. Hypothyroid--recent start to thyroxine, sometimes gets sluggish, seems to improved when on antibiotics. This time, leaking urine, could express yesterday, now today, just going everywhere having loose stool not sure if urinated tonight hx of increase in Creat once was on amoxi for a UTI from 2 weeks ago she started metronidazole 2 days ago. Bladder was unable to express-feel may have been from crusted prepuce and fur over region, as once undone and lavage once (with a 24 g IVC) great stream and has urinated well since. Had bought of hypoglycemia, even when eating well--- now is normal off the supplementation overall a little brighter, eating

Current Medications: Potassium Chloride, RenaKare Gel, Metronidazole, Thyro Tabs, Buprenorphine.
Lab Results: See attached.
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, 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 is slightly small and irregular at 2.48 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 is slightly small and irregular at 2.54 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 0.30 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 0.38 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 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. No focal nodules or cystic lesions are observed.

The gallbladder lumen is moderately distended. The wall of the gall bladder 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 contains minimal luminal contents. It measures at a normal thickness of <0.36cm 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 moderate 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 (between 0.13-0.38cm in wall thickness) and the jejunum measured as normal (between 0.15-0.36cm.) 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 nonformed 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 hypoechoic as 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

There is scant free abdominal fluid. No lymphadenopathy is noted. The omentum is generally of normal echogenicity.

Other

Scant pericardial and pleural effusion is visualized on evaluation of the thorax. Recommend 3-view thoracic radiographs.

ULTRASONOGRAPHIC FINDINGS

- Heterogeneous, hypoechoic liver – Hepatic changes are non-specific and could be consistent with inflammation/infection (cholangiohepatitis), infiltrative neoplasia, lipidosis or other hepatopathy. If liver values are normal, this could be an incidental finding.
- Somewhat irregular and small kidneys – No focal lesions are visualized. These changes could be consistent with congenital change, underlying renal disease, or could be incidental.
- Prominent, hypoechoic pancreas – The pancreatic changes are most consistent with mild pancreatitis or a recent episode of pancreatic inflammation.
- Diffusely fluid distended small intestine – Correlate with feeding history. Findings could be consistent with lack of fasting or mild ileus.
- Scant pericardial and pleural effusion – recommend 3-view thoracic radiographs and cardiac ultrasound.

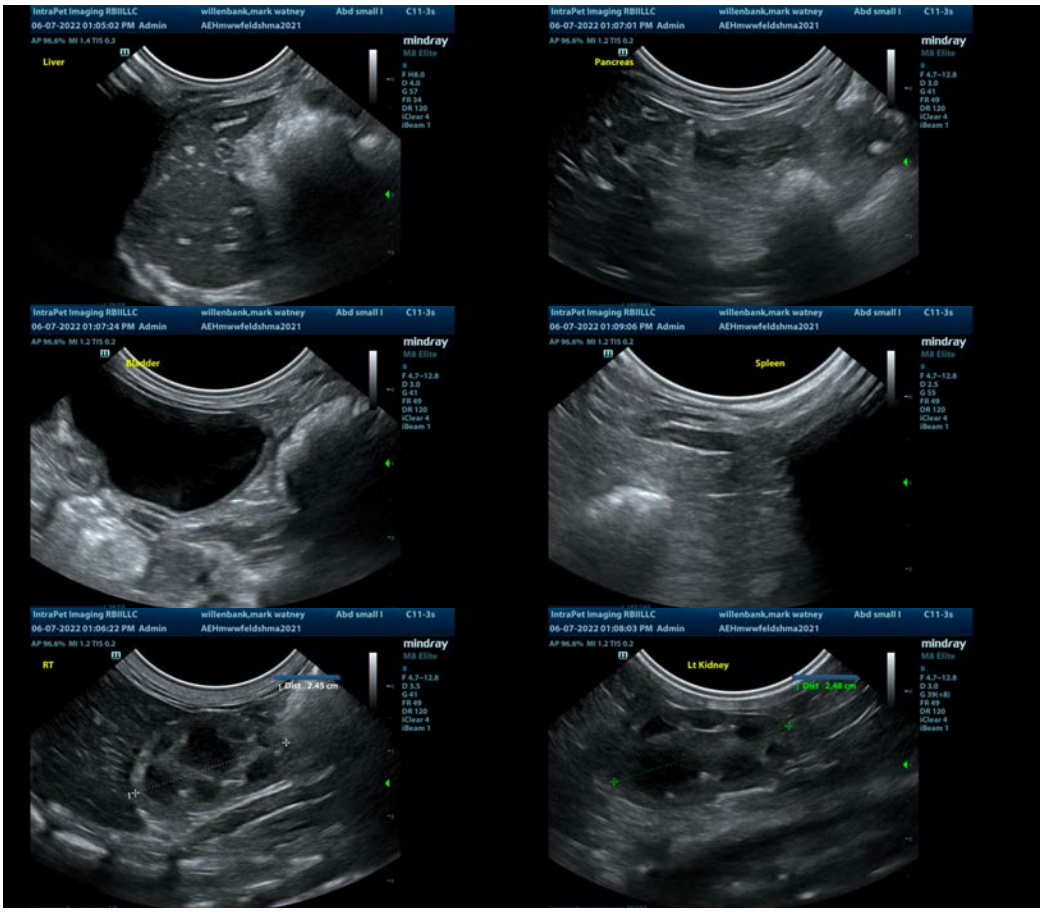
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

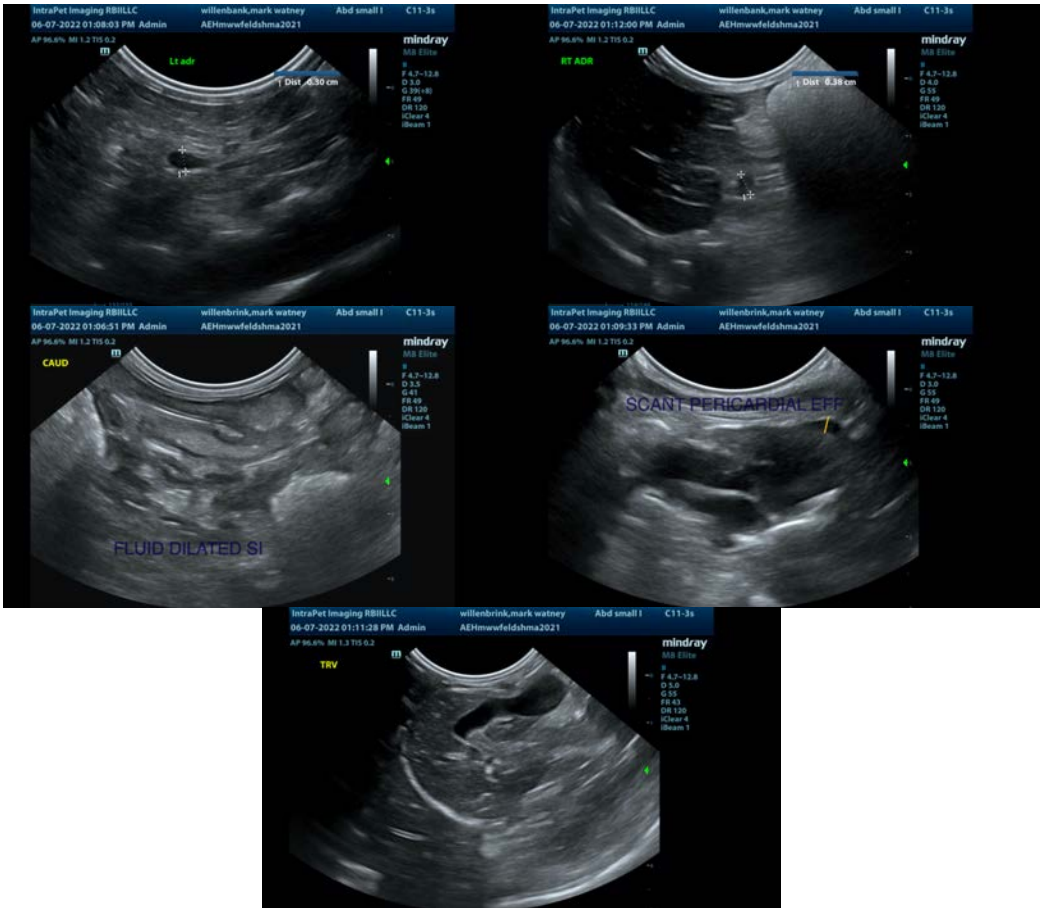
No large focal lesions are visualized on today's scan. Many of the changes are subtle and non-specific. The pancreas is somewhat prominent. Consider a GI panel to Texas A&M for a qualitative fPLI, TLI, cobalamin and folate to look for evidence of underlying pancreatic disease, congenital B12 deficiency, etc.

Based on the low albumin reported, recommend a urine protein to creatinine ratio as well as a liver function and the aforementioned GI panel.

Consider a cardiac ultrasound and 3-view thoracic radiographs.

Consider consultation with a veterinary endocrinologist if the response to thyroid supplementation is not adequate, as not all congenital hypothyroid patients respond to Thyroxine therapy. Additionally, consider such differentials as a growth hormone deficiency, portosystemic shunt, congenital Addison's disease, and congenital heart disease as potential causes of "failure to thrive" situation.





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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