**DATE**

8/10/21

PRESENTING CLINICAL SIGNS

History: Hx of biliary obstruction with stone in distal bile duct. No surgery pursued, medical management only. Recently began urinating out of box, otherwise doing well.

Current Medications: Denamarin and Ursodiol. (Doses/frequency not provided by the veterinarian).

Lab Results: Not provided by the veterinarian.

Radiographs: Not provided by the veterinarian.

Date of Previous IntraPet Ultrasound: 3-30-2021; 2-19-2021.

Sedation: Sedation not required for scan.

Stat Report: STAT report not requested by the veterinarian.

PATIENT

Shirley Chilcoat

SPECIES

Feline

BREED

Domestic Shorthair

SEX

Spayed Female

AGE

1/16/09

WEIGHT

8.18 lbs

INTERPRETED BY

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

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 (3.82 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 (3.66 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 region of left adrenal (Cranial to left renal artery) is unremarkable but the adrenal is not distinctly visualized. No evidence of a mass effect.

The region of the right adrenal (between right cranial kidney and vena cava) is unremarkable, but the adrenal is not distinctly visualized. No evidence of a mass effect.

HOSPITAL NAME

Chadwell AH

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.

REFERRING VET

Dr. Haskin

Liver

The liver is subjectively (normal, large, small, normal/large, normal/small) 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 bile duct remains severely dilated and tortuous with an approximately 0.4 cm stone visualized. The bile duct measures at 0.44 cm. There is no free fluid or inflammation surrounding the gallbladder or bile duct.

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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 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 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 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 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

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.

ULTRASONOGRAPHIC FINDINGS

PRIMARY FINDINGS:

- Severely dilated bile duct with suspected biliary stone. The findings are similar to the previous scan, but there is minimal inflammation surrounding this area.
- Mildly heterogenous 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.

SECONDARY FINDINGS:

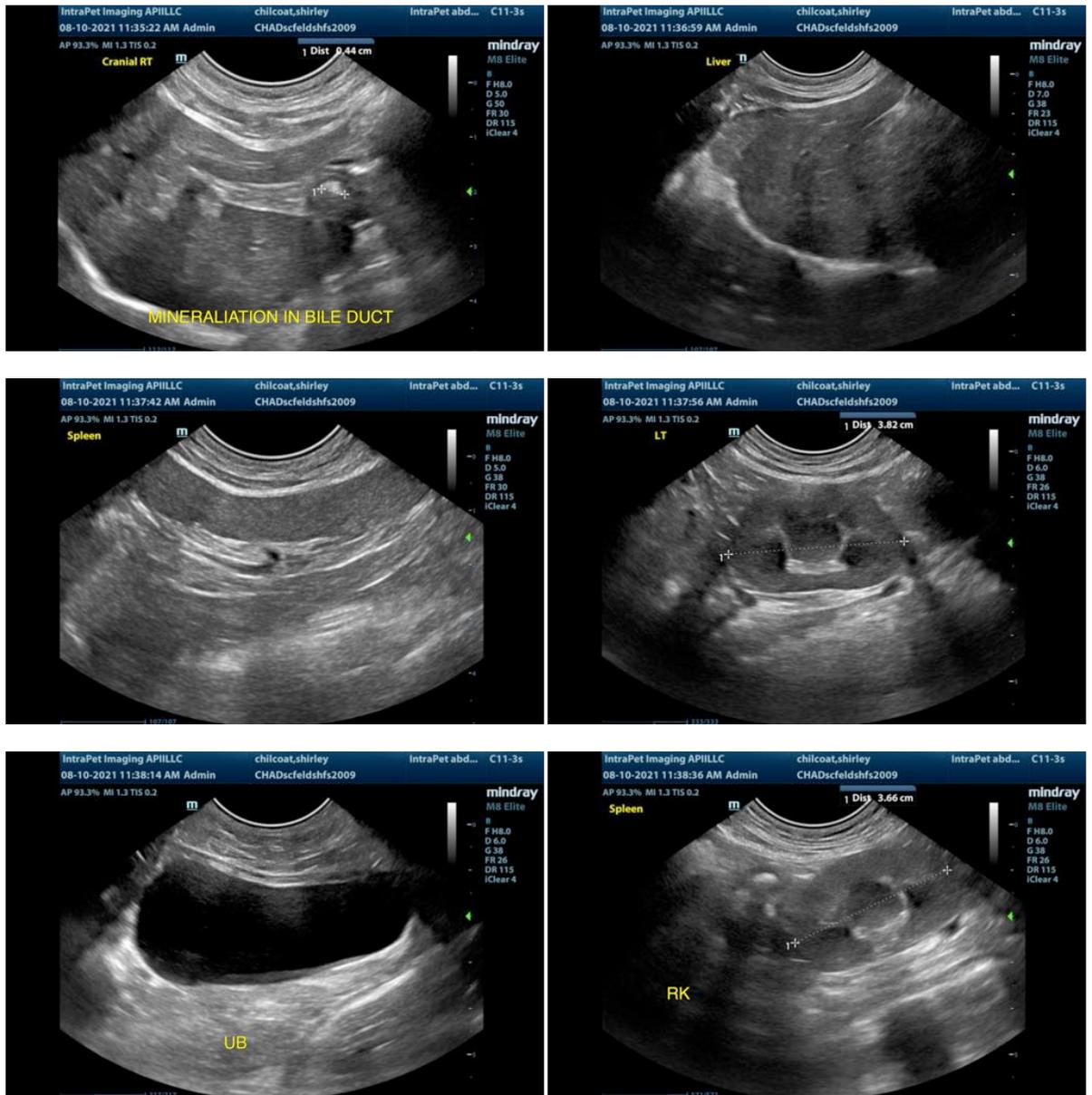
- Decreased corticomedullary distinction in both kidneys. Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis.
- Hypoechoic, prominent pancreas. The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The bile duct dilation is stable with no apparent progression. The secondary inflammation present at the first scan is resolved and there is no surrounding fluid or lymphadenopathy. It is possible that liver enzymes may never normalize. If they do I would expect that there is the possibility of recurrent acute events that could

necessitate antibiotic therapy. If the liver enzymes are spiking again then consider another 4-6 weeks of broad-spectrum antibiotics. If they are stable then I would just continue to monitor with blood work +/- periodic ultrasound.

No obvious cause for the reported inappropriate urination is observed. Consider urinalysis and culture.





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.

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