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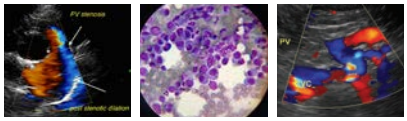

SonoPath
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DATE

7/19/22

PATIENT

Simba Olnick

SPECIES

Canine

BREED

Pekingese

SEX

Neutered Male

AGE

7/5/08

WEIGHT

12 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Rachel Brilhart RDMS

HOSPITAL NAME

All Creatures Veterinary Service

REFERRING VET

Dr. Meadows

INVOICE

39656

PRESENTING CLINICAL SIGNS

Was seen at ER for pain somewhere. Had chest and abdominal x-rays done-- has marked cardiac enlargement and concern of fluid in abdomen. Pet was put on Furosemide, Pimobendan, NSAIDs, and gabapentin. Pain meds helped with discomfort but continues to have a poor appetite.
Was seen here for a follow-up on 7/6/22-- pulled full BW due to still having poor appetite. Gave Cerenia. Continued Furosemide, pimobendan, and Gabapentin, and NSAIDs. Labwork came back with mild ALT elevation-- R/O venous congestion. Had slightly elevated PSL.
Discussed doing ultrasound to tell if any cause for poor appetite and look for any apparent source of fluid in abdomen vs. from heart failure. Has arrhythmia. Recommended cardiology consult for the heart-- owner not sure if she wants done or can do, but would like ultrasound done of abdomen.

Current Medications: Gabapentin 30mg q8hrs, Carprofen 12.5mg q24hrs PRN, Furosemide 5mg q12hrs, Pimobendan 1.25mg q12hrs, Entyce 15mg q24hrs.
Lab Results: Elevated ALT and PSL.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Declined.
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 at 0.78 cm in height in the sagittal view. It is normal in shape. The parenchyma is largely homogeneous, but there are numerous punctate hyperechoic foci, most consistent with mineralization. The prostatic urethra appears normal with no evidence of irregularity, invasion of mass effect, or calculi.

The left kidney has a normal shape and size (3.94 cm) with pyelectasia at 0.74 cm and numerous non-obstructive nephroliths. 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 infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (4.38 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 0.64 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 0.49 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 normal in echogenicity with smooth peripheral margins. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. Prominent, dilated vasculature noted, most consistent with congestion. There are numerous somewhat ill-defined, hyperechoic nodules throughout the liver. Examples include a 1.9 cm nodule, a lesion with a small cyst within it measuring 2.84 cm x 2.7 cm, and a 2.8 cm lesion near the diaphragm.

The gall bladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. There is a moderate amount of non-organized echogenic debris. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.7cm 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 duodenum measured as normal (between 0.3-0.5cm in wall thickness) and the jejunum measured as normal (between 0.2-0.47cm.) 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

There is a large amount of free abdominal fluid. No lymphadenopathy is noted. The omentum is generally of increased echogenicity.

Other

A brief view of the heart was submitted. No significant pericardial effusion was seen. A full cardiac ultrasound is strongly recommended due to the indications of primary heart disease.

PRIMARY FINDINGS

- Punctate mineralizations visualized within the prostate – This can be an indicator of previous prostatic disease, particularly in a pet that is neutered at a later age. Alternately, this can be seen secondary to neoplasia. Recommend continued monitoring of the prostate +/- fine needle aspirate.

- Decreased corticomedullary distinction in both kidneys with left-sided pyelectasia and non-obstructive nephroliths – The bilateral renal findings are consistent with age-related change. Pyelectasia of the left kidney could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other.

- Large, heterogeneous liver with dilated vasculature and hyperechoic nodules/masses – 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. The dilated vasculature is concerning for underlying cardiac disease. The hyperechoic nodules present could represent benign or neoplastic lesions. Recommend a fine needle aspirate.

- Large volume free abdominal fluid – recommend fluid analysis and cytology, suspect this is secondary to congestive heart failure.

ULTRASONOGRAPHIC FINDINGS

- Prominent, hypoechoic pancreas – The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.

- Moderate gallbladder debris – The significance of the aggregated gallbladder sludge is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting.

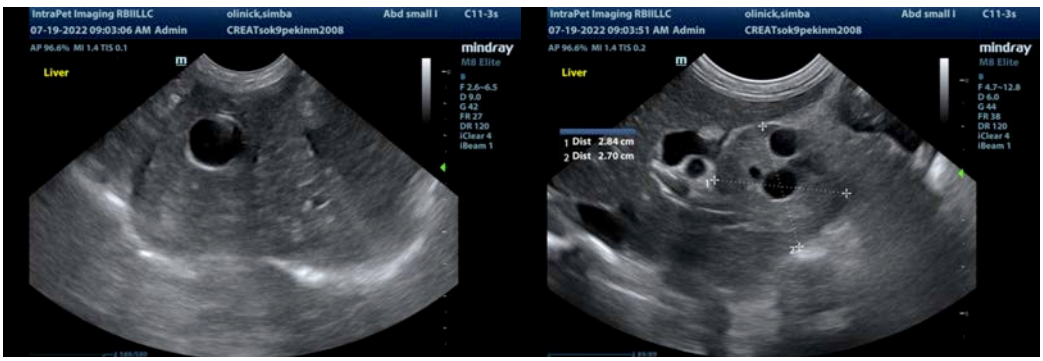
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Numerous lesions are visualized on today's scan, which is to be expected in a 14 year old dog. Most of the changes appear somewhat chronic in nature, and I suspect the current illness is secondary to primary cardiac disease. I strongly recommend cardiac ultrasound for prognosis and therapeutic recommendations.

The liver is large and there are numerous hyperechoic masses/large nodules visualized. These hyperechoic nodules trend towards a more benign appearance, but an underlying neoplastic process cannot be excluded as a possibility. Recommend a fine needle aspirate of a hyperechoic lesion.

There are degenerative changes visualized in both kidneys consistent with chronic progressive renal disease/age related change. Additionally, there is pyelectasia in the left kidney and some small non-obstructive nephroliths. Recommend a blood pressure evaluation, urinalysis and culture.

There is a small amount of punctate mineralization visualized within the prostate Correlate this with the age of neutering. If this patient was neutered after puberty, this could be consistent with previous prostatic disease. If there are lower urinary tract signs and the prostate seems to be getting larger, then consider a fine needle aspirate. Continued monitoring is warranted (abdominal ultrasound +/- routine digital rectal exam).

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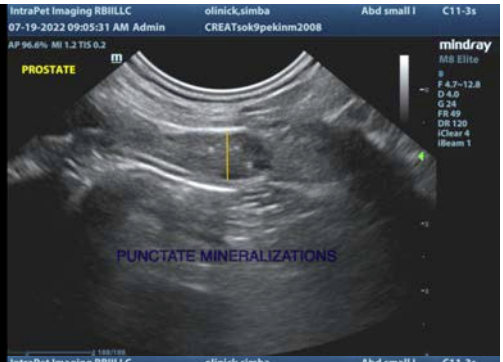
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PROSTATE
PUNCTATE MINERALIZATIONS


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Abd small I
C11-3s
07-19-2022 09:06:37 AM Admin
CREATsok9pekinm2008
mindray
M8 Elite
Spleen
LARGE FREE FLUID


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CREATsok9pekinm2008
mindray
M8 Elite
Liver
1 Dist 2.80 cm


IntraPet Imaging RBIILLC
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Abd small I
C11-3s
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CREATsok9pekinm2008
mindray
M8 Elite
RT
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2 Dist 0.49 cm
3 Dist 0.49 cm


IntraPet Imaging RBIILLC
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Abd small I
C11-3s
07-19-2022 09:06:35 AM Admin
CREATsok9pekinm2008
mindray
M8 Elite
LT ADR
1 Dist 1.69 cm
2 Dist 0.64 cm
3 Dist 0.56 cm


IntraPet Imaging RBIILLC
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Abd small I
C11-3s
07-19-2022 09:06:18 AM Admin
CREATsok9pekinm2008
mindray
M8 Elite
LT
1 Dist 3.99 cm
2 Dist 0.75 cm
3 Dist 0.43 cm


IntraPet Imaging RBIILLC
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Abd small I
C11-3s
07-19-2022 09:03:17 AM Admin
CREATsok9pekinm2008
mindray
M8 Elite
Liver
GB
PROMINENT VESSELS- CONGESTION

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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