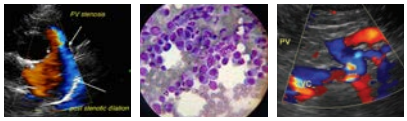
IMAGING PERFORMED BY

IntraPet.com



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com

DATE

10/15/21

PATIENT

Justice Zerhusen

SPECIES

Canine

BREED

Bichon

SEX

Spayed Female

AGE

1-6-07

WEIGHT

18 Pounds

INTERPRETED BY

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

HOSPITAL NAME

Northwind AH

REFERRING VET

Dr. Jones

INVOICE

26341

PRESENTING CLINICAL SIGNS

History: Patient has a prolonged history of elevated liver enzymes. Patient was sick originally and not doing well but hepatic enzymes still elevated.

Current Medications: Denamarin 225mg, Amoxicillin 100mg 1/2-tab bid x3, Metronidazole 62.5 BID X 10 Days.
Lab Results: 8/25/2021 Chol 359, ALT >1000, ALP 239, GGT 19
10/13 ALT>1000, ALP 308.
Radiographs: Not provided by the veterinarian.
Date of Previous IntraPet Ultrasound: No previous IntraPet scans.
Sedation: Sedation not required for scan.
Stat Report: STAT report not requested by the veterinarian.

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 (5.11 cm) with pinpoint non-obstructive nephroliths. 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, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (4.9 cm) with pinpoint non-obstructive nephroliths. 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, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is large in size measuring 1.0 cm at the cranial pole, 0.39 cm at the caudal pole, and 2.55 cm in length. It is observed in its normal position cranial to the left renal artery. It is somewhat atypical in shape, in that the cranial pole is enlarged as compared to the caudal pole. it is generally isoechoic and normal in echotexture. Findings are most consistent with a left cranial adrenal nodule.

The right adrenal gland is normal in size measuring 0.48 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. There are two large masses visualized within the liver. A smaller mass is hyperechoic and somewhat mixed in echogenicity, measuring approximately 4.4 cm x 3.31 cm. The second larger mass is less well defined and hyperechoic, measuring 7.49 cm x 8.25 cm.

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 <0.7cm 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 normal and isoechoic to surrounding 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.

PRIMARY FINDINGS

- Two hyperechoic liver masses – These could be benign or cancerous masses such as a hepatoma, hepatic carcinoma, etc.

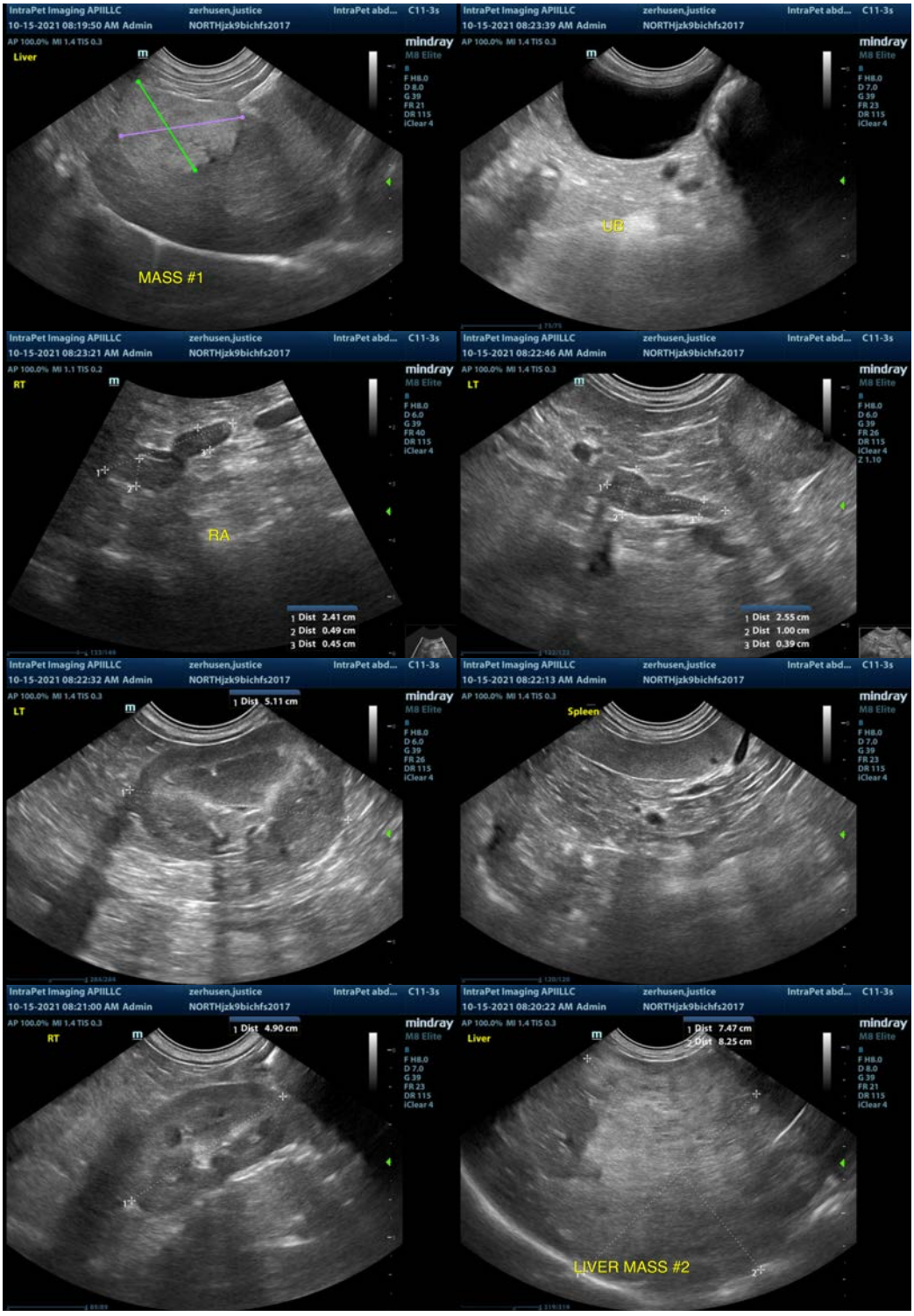
- Left cranial adrenal nodule – Left adrenomegaly could be consistent with neoplasia (e.g., adenoma, carcinoma, pheochromocytoma), hyperplasia, inflammation, other.

SECONDARY FINDINGS

- Pinpoint non-obstructive nephroliths in both kidneys – The hyperechoic mineralized foci observed at the corticomedullary junction of the left/right kidney are consistent with small, non-obstructive nephroliths.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Unfortunately, I suspect the chronic ALT elevation is secondary to the mass lesions observed. These could be benign or malignant masses, but they are of large size at this point and likely causing some issues. Recommend advanced imaging (CT scan) to better evaluate the liver as a whole and determine your options for surgical removal. This would be of both therapeutic and diagnostic benefit. At that time you can also image the left adrenal nodule. It is relatively small at this time and could be incidental. If signs of Cushing's are present, you could consider an adrenal function test, or even adrenalectomy. If signs of Cushing's are not present, you could consider continued monitoring with ultrasound. Recommend 3-view thoracic radiographs and blood pressure evaluation.


IntraPet Imaging APIILLC
zerhusen,justice
IntraPet abd...
C11-3s
10-15-2021 08:19:50 AM Admin
NORTHjzk9bichfs2017
Liver
MASS #1
10-15-2021 08:23:39 AM Admin
UB
10-15-2021 08:23:21 AM Admin
RT
RA
1 Dist 2.41 cm
2 Dist 0.49 cm
3 Dist 0.45 cm
10-15-2021 08:22:46 AM Admin
LT
1 Dist 2.55 cm
2 Dist 1.00 cm
3 Dist 0.39 cm
10-15-2021 08:22:32 AM Admin
1 Dist 5.11 cm
10-15-2021 08:22:13 AM Admin
Spleen
10-15-2021 08:21:00 AM Admin
1 Dist 4.90 cm
10-15-2021 08:20:22 AM Admin
1 Dist 7.47 cm
2 Dist 8.25 cm
LIVER MASS #2

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