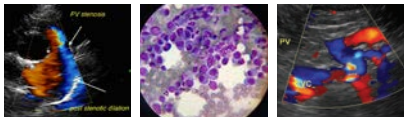
IMAGING PERFORMED BY

IntraPet.com



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
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DATE

1/27/23

PATIENT

Fitz Smith

SPECIES

Canine

BREED

Shiba Inu

SEX

Neutered Male

AGE

2/14/13

WEIGHT

20 kg

INTERPRETED BY

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

HOSPITAL NAME

Nexus Vet Specialists

REFERRING VET

Dr. Haveman

INVOICE

44538

PRESENTING CLINICAL SIGNS

Fitz presented middle of November for lameness of the right thoracic limb, noted presented 10 days before presentation. No history of trauma prior to presentation. Patient was sent home with 10 day course of NSAIDs. At recheck 3 weeks later, no improvement noted. Firm swelling at right shoulder noted. Thoracic limbs radiographs performed, no evidence of boney involvement, ¼ lameness. At second recheck, increase in swelling and lameness, ¾. Radiographs repeated, suspected soft tissue swelling.

Current Medications: Gabapentin 300mg BID, Tramadol 50mg 2 BID, Carprofen 100mg ½ BID.
Radiographs: Poorly exfoliative atypical mesenchymal cell proliferation most consistent with a sarcoma. The cytologic impression is most consistent with a sarcoma, most likely of soft tissue origin, though a chondrosarcoma cannot be excluded. Biopsy with histopathology is recommended for definitive characterization as well as potential grading and margin evaluation.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Requested.
Imaging Performed By: Andi Parkinson, BS, 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 visualized areas of prostate and surrounding tissue appear normal. Unfortunately, the prostate is not fully visualized likely due to its intrapelvic location. Correlate with rectal exam findings.

The left kidney has a normal shape and size (4.69 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal 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 (5.33 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal 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 0.53 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 0.66 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 hypoechoic with swollen margins. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. There is a somewhat superficial mixed echogenic mass effect in the caudal aspect of the left side of the liver, just ventral to the stomach, measuring 3.05 cm x 2.6 cm. Additionally, there is a deeper isoechoic mass effect on the left side visualized measuring 1.46 cm in diameter, and the suspicion of a possible hypoechoic nodule in the region of the gallbladder measuring 2.46 cm x 2.25 cm.

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
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.

Thorax
A hypoechoic nodule is visualized on the right side of the thorax through the diaphragm, measuring 2.25 cm x 2.48 cm. There are additional smaller hypoechoic lesions visualized, which appear to be moving with respiration and are most consistent with pulmonary nodules, measuring 0.84 cm and 0.74 cm.

ULTRASONOGRAPHIC FINDINGS

- Large, hypoechoic, heterogeneous liver with rounded margins and several mass effects – 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 superficial mixed echogenic mass effect is slightly expansile and deforming the hepatic margins somewhat. This could be a primary hepatic mass lesion (adenoma, carcinoma, etc.), or may less likely represent a metastatic lesion. The isoechoic deep left-sided lesion has more of the appearance of a benign lesion, although an underlying neoplastic process cannot be ruled out, and the hypoechoic lesion near the gallbladder is questionable. This area should be monitored.

- Moderate gallbladder debris – The significance of the aggregated gallbladder debris is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting but seems unlikely to be causing a current issue. Recommend continued monitoring.

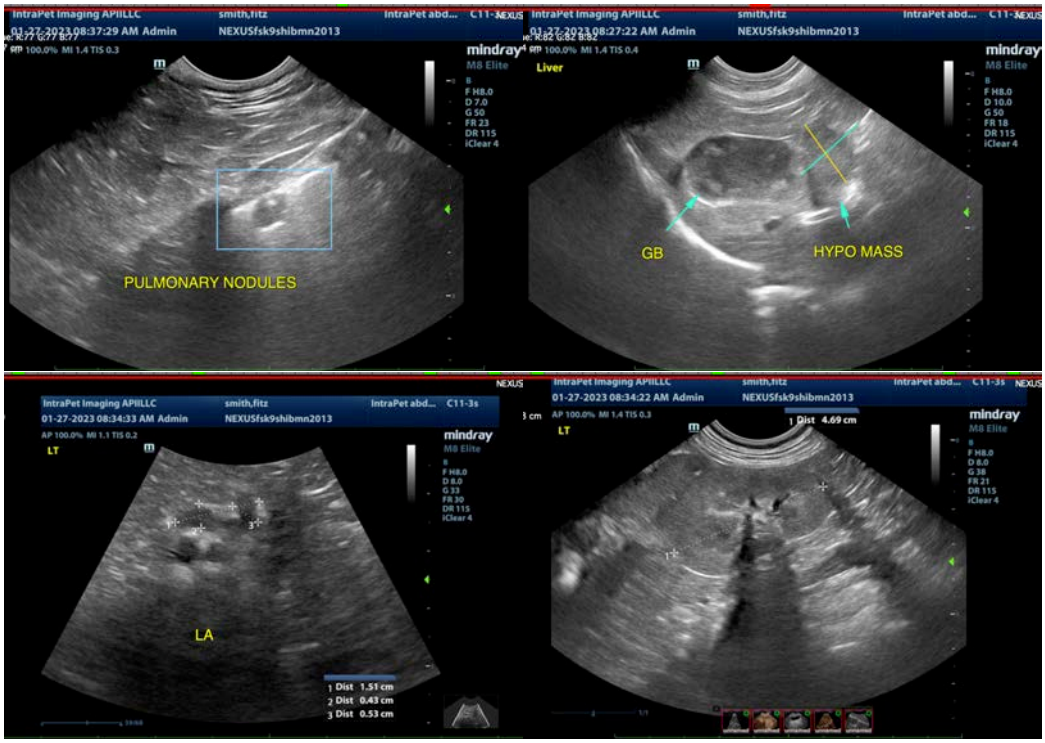
- Prominent, hypoechoic pancreas – The pancreatic changes are most consistent with mild pancreatitis or a recent episode of pancreatic inflammation.

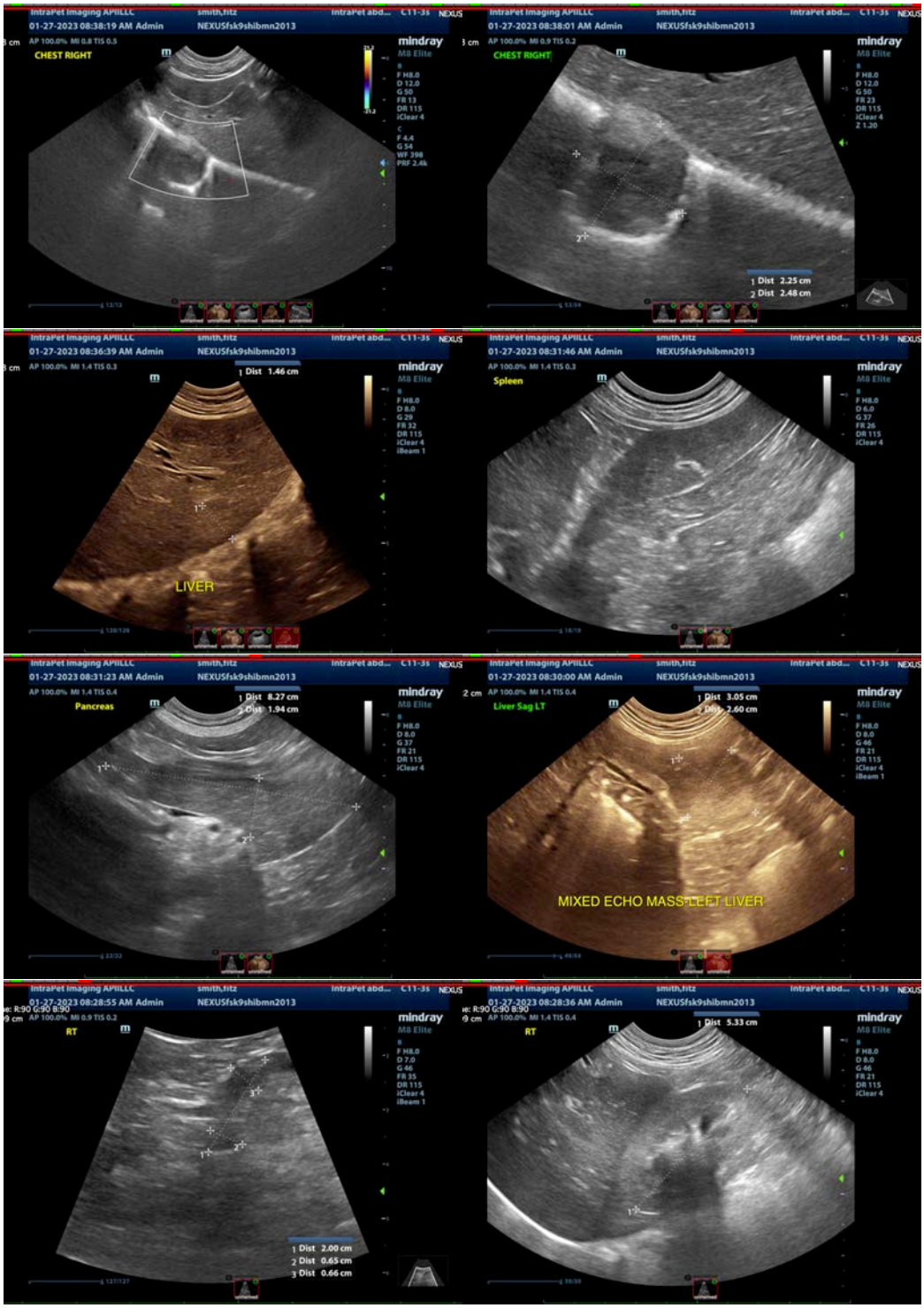
- Multiple hypoechoic pulmonary nodules visualized – Hypoechoic thoracic masses are visible if nodules are accessible, a fine needle aspirate is warranted to obtain more information. A thoracic CT scan is recommended for assessment of location/distribution for possible surgical planning.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Ultrasonographic findings include a large, rounded, heterogeneous and hypoechoic liver with multiple mass lesions (with different appearances), a slightly prominent pancreas with some moderate gallbladder debris, and multiple hypoechoic nodules visualized within the thoracic cavity/pulmonary tissue.

Further diagnostic and therapeutic recommendations regarding this exam to be made by Dr. Haveman.




CHEST RIGHT
01-27-2023 08:38:19 AM Admin
CHEST RIGHT
01-27-2023 08:38:01 AM Admin
1 Dist 2.25 cm
2 Dist 2.48 cm
01-27-2023 08:36:39 AM Admin
1 Dist 1.46 cm
LIVER
01-27-2023 08:31:46 AM Admin
Spleen
01-27-2023 08:31:23 AM Admin
Pancreas
1 Dist 8.27 cm
2 Dist 1.94 cm
01-27-2023 08:30:00 AM Admin
Liver Sag LT
1 Dist 3.05 cm
2 Dist 2.60 cm
MIXED ECHO MASS LEFT LIVER
01-27-2023 08:28:55 AM Admin
RT
1 Dist 2.00 cm
2 Dist 0.65 cm
3 Dist 0.66 cm
01-27-2023 08:28:36 AM Admin
RT
1 Dist 5.33 cm

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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