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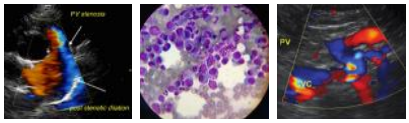

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DATE

5/19/22

PATIENT

Bailey Zito

SPECIES

Canine

BREED

Shih Tzu

SEX

Spayed Female

AGE

8/31/07

WEIGHT

8 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Andi Parkinson RDMS

HOSPITAL NAME

Banfield White Marsh

REFERRING VET

Dr. Gutwillig

INVOICE

37792

PRESENTING CLINICAL SIGNS

History of elevated liver enzymes, renal azotemia and inappetnace. Dog apparently vomits regularly and is generally only interested in eating hard boiled eggs.

Current Medications: Nothing currently- was supposed to pick up Entyce a few days ago but owner never bought it.
Lab Results: 12/8/21- SDMA 19 (0-14). 5/6/22- PLT 1064 (165-500), ALKP 273 (23-212), ALT 506 (10-125), Cpl test neg, fecal neg. Mildly elevated BUN for the last 3 years.
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, or masses. There is a 1.51 cm shadowing, hyperechoic structure in the dependent portion of the urinary bladder, most consistent with a solitary stone. Correlate with abdominal radiographs.

The left kidney has a normal shape and size (3.59 cm) with small 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 pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (3.88 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 large in size measuring 0.33 cm at the cranial pole, 0.92 cm at the caudal pole, and 1.98 cm in length. It is observed in its normal position cranial to the left renal artery. It is somewhat abnormal in appearance in that the caudal pole is enlarged as compared to the cranial pole. There is no obvious evidence of vascular invasion.

The right adrenal gland is large in size and irregular, measuring 0.62 cm at the cranial pole, 0.56 cm at the caudal pole, and 1.49 cm in length. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is somewhat irregular in appearance in that there is a hyperechoic nodule in the cranial pole measuring 0.70 cm x 0.44 cm. The cranial aspect of this lesion is somewhat irregular and either deviates or invades the local vasculature.

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 irregular in shape. 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 very large, expansile, mixed echogenic mass effect in the medial portion of the liver, measuring 6.09 cm x

6.22 cm. Additionally, there is some irregularity on the right side of the liver, which could be an extension of this lesion or a secondary mass effect.

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 is moderately dilated with fluid and irregular shadowing material most consistent with normal ingesta and gas. 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 layering 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.

ULTRASONOGRAPHIC FINDINGS

- Hyperechoic shadowing structure within the urinary bladder – most consistent with a bladder stone. Correlate with abdominal radiographs, urinalysis and culture.
- Enlarged caudal pole to the left adrenal gland – This could be consistent with normal anatomic variation, a benign or cancerous lesion.
- Heterogeneous liver with large, expansile, mixed echogenic mass effect – most concerning for a primary liver mass. Adenoma or carcinoma would be most likely.
- Hyperechoic nodule in the cranial pole of the right adrenal gland – This lesion appears somewhat subtle, but there is some irregularity towards the cranial pole, which could represent infiltration of or impingement on the local vasculature.
- Decreased corticomedullary distinction in both kidneys with non-obstructive nephroliths – Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis.

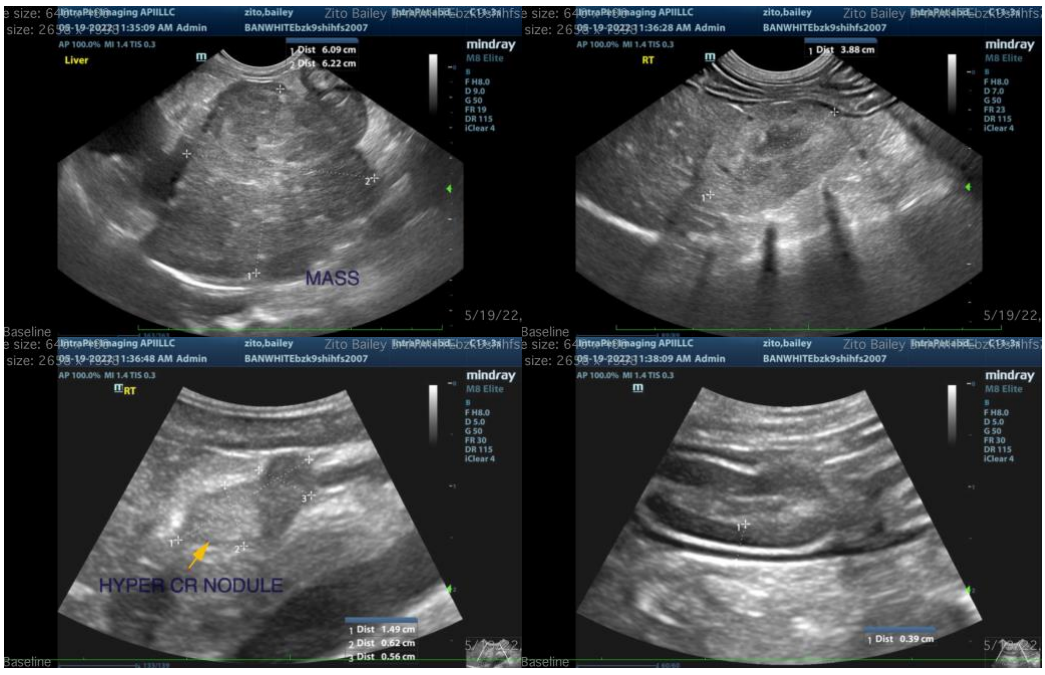
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

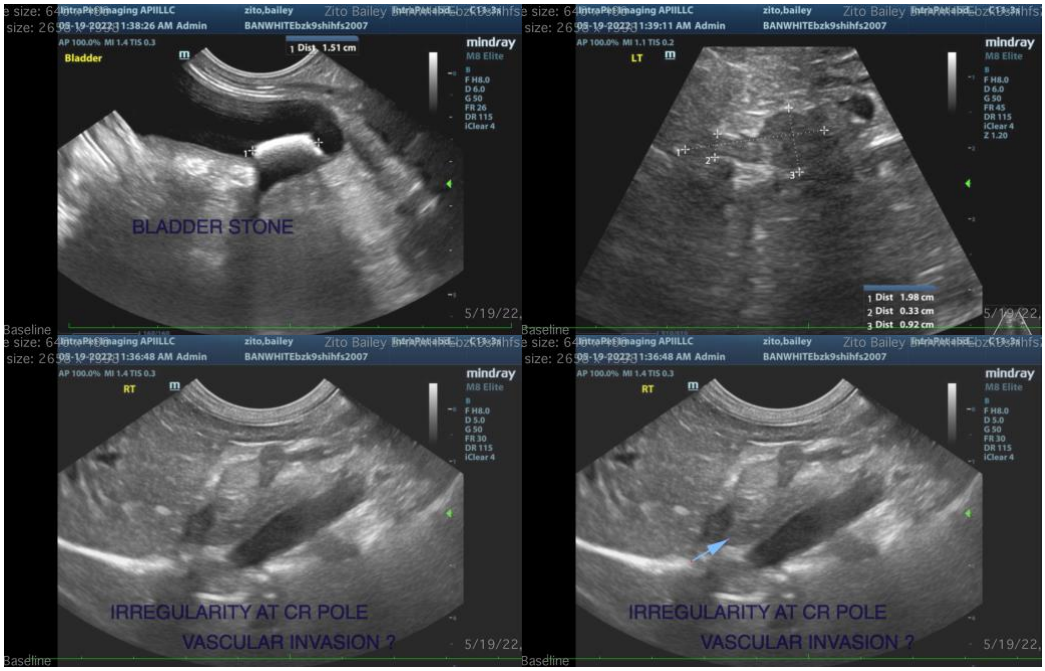
There is a large liver mass present, which is the likely source for the liver enzyme elevations reported. This lesion trends towards the appearance of a primary liver mass. These lesions can have somewhat benign behavior, even if neoplastic. Consider a contrast CT scan to evaluate for possible surgical removal. If these lesions can be removed in their entirety, the prognosis is often good.

Consider three view thoracic radiographs to rule out concurrent thoracic disease/involvement.

Both adrenal glands are abnormal. I suspect these are separate lesions (not representative of one disease process). The left adrenal gland has an enlarged caudal pole. This appears somewhat benign, but if signs of Cushing's are present, then adrenal function testing could be considered once the hepatic mass is dealt with and resolved. The right adrenal gland has a hyperechoic lesion in the cranial pole. There is questionable irregularity at the cranial pole, which could represent early vascular invasion. If an abdominal CT scan is performed, this adrenal gland can be further evaluated for invasion/possible surgical removal, etc. Recommend blood pressure evaluation and close monitoring of these lesions with abdominal ultrasound.

There is a stone visualized within the urinary bladder. Correlate the present and number of stones present with radiographs and recommend urinalysis and culture +/- surgical removal.





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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