



PATIENT PRESENTING CLINICAL SIGNS

Reba Taubert History: Concern on lab work last year for severe ALT elevation 2200. Ultrasound done at that time and no evidence of neoplasia, so hepatitis was primary differential. Was started on metronidazole, ursodiol and aventi liver support. ALT decreased to 300 initially. ALT now elevating again. Patient is asymptomatic.

SPECIES

Canine

Abnormal PE/Chem/CBC/UA Results: Elevated bile acids 129. ALT elevation 570. Normal coags

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

BREED

Aussie Dbl Doodle

Urinary System

The urinary bladder wall is normal in thickness and the mucosal surface is smooth. The bladder lumen is moderately distended with anechoic urine. No masses, inflammatory changes or calculi are observed. The region of the trigone is normal.

SEX

Female Spayed

The left kidney is normal in size (4.47 cm in length) with a normal shape, architecture and smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with normal corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

AGE

5 years

The right kidney is normal in size (4.66 cm in length) with a normal shape, architecture and smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with normal corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

Adrenal Glands

WEIGHT

8.5 kg

The left adrenal gland is normal in size (0.31 cm at cranial pole) (0.44 cm at caudal pole) with a normal shape and homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

INTERPRETED BY

Andrea Nicastro, DVM,
Diplomate ACVIM (*Small
Animal Internal Medicine*)

The right adrenal gland is in normal size (0.58 cm at cranial pole) (0.50 cm at caudal pole) with a normal shape and homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

IMAGING PERFORMED BY

Dr Sarah Barthelemy

Spleen

The spleen is normal in size (1.20 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature is normal.

HOSPITAL NAME

Aspen AH

Liver

The liver is subjectively normal in size with normal curvilinear peripheral contours. The parenchyma is hypoechoic relative to the spleen. In the caudate process, several varying-sized hypoechoic nodules are observed (the largest measuring 1.93 cm in diameter). Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion. The portal vein to caudal vena cava ratio appears to be approximately 1: 1.

REFERRING VET

Dr Ross

The gall bladder lumen is moderately distended. The wall is thin and smooth. Luminal contents are anechoic. The cystic and common bile ducts are normal/not seen.

INVOICE

12372

Gastrointestinal

The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is minimally distended with fluid and ingesta. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The pyloric outflow tract is patent. The small intestinal lumen is not dilated. The small intestinal wall thickness is normal with a normal layering pattern and appropriate mural

DATE

3.9.23

detail. Discreet masses are not identified. The colonic wall is normal. There is no evidence of an obstructive pattern.

Pancreas

The region of the pancreas is isoechoic relative to surrounding omental fat. No obvious parenchymal abnormalities are observed. There is no evidence of regional inflammation or effusion.

Free Abdomen

The peritoneal cavity is normal. There is no evidence of inflammation or effusion. The abdominal lymph nodes are normal/not visible.

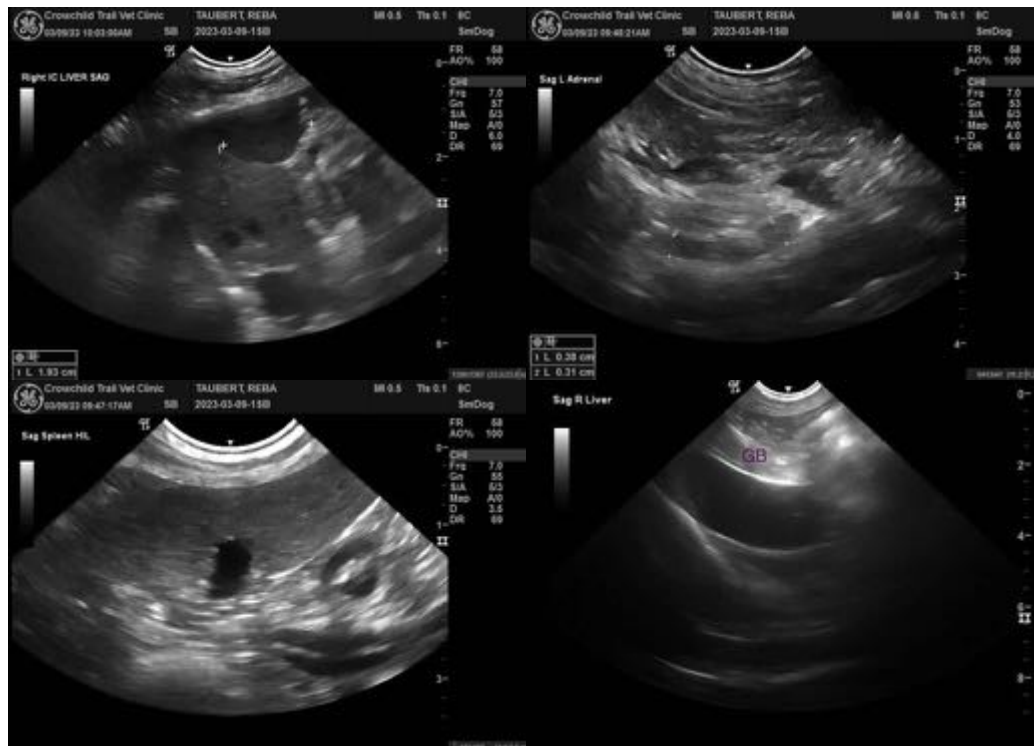
ULTRASONOGRAPHIC FINDINGS

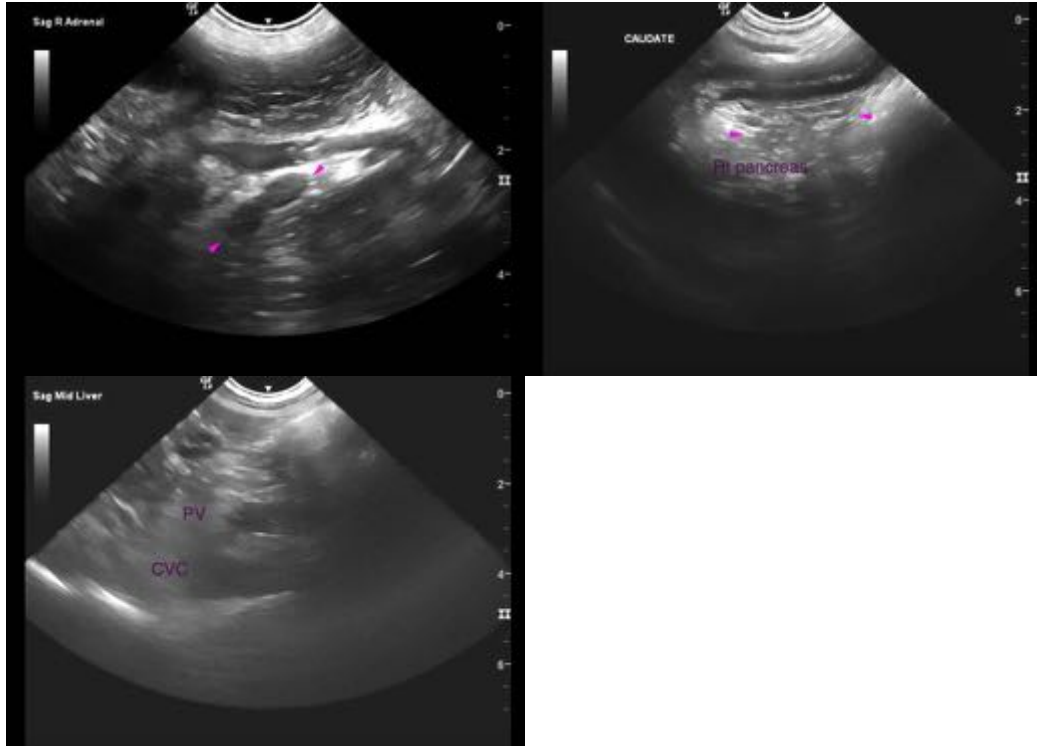
Findings

- The hypochoic nodules in the caudate process of the liver may represent infiltrative neoplasia, inflammatory foci, areas of thrombosis, necrotic foci, other.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Consider fine-needle aspirates of the hypochoic hepatic nodules (if accessible), if clotting status is appropriate. Twenty-five gauge-needles should be used. Cytology results would be useful in helping to determine if a neoplastic process is present. If the cytology results are inconclusive, or if aspirates are not pursued, laparoscopic, or surgical liver biopsies of multiple lobes, including the caudate process, would be recommended, along with aerobic and anaerobic bile cultures, and hepatic copper quantitation. A contrast abdominal CT scan would also be useful in further evaluating for a shunting vessel (although this is considered less likely).





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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