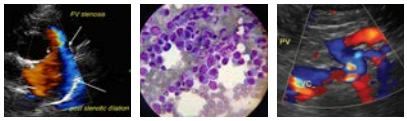
IMAGING PERFORMED BY

IntraPet.com



SonoPath
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DATE

6/14/23

PATIENT

Abbey Schlow

SPECIES

Canine

BREED

Hound x

SEX

Spayed Female

AGE

9/21/11

WEIGHT

67.4 Pounds

INTERPRETED BY

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

HOSPITAL NAME

AMC of Dulaney Valley

REFERRING VET

Dr. Chrest

INVOICE

43156

PRESENTING CLINICAL SIGNS

Increasing liver values.

Current Medications: Nutrived/Thyro-tabs 0.8mg 1 SID (just began the end of May), Glycoflex joint support, Sildenafil 20mg BID (for megaesophagus).
Lab Results: See attached.
Radiographs: See attached.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.
Imaging Performed By: Rachel Brilhart, 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 left kidney has a normal shape and size (5.98 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 (5.64 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/borderline flat in size measuring 0.48 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 large and irregular, measuring 1.0 cm at the cranial pole, 2.36 cm at the caudal pole, and 4.38 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 abnormal in appearance in that it is large, and the caudal pole is significantly enlarged and hypoechoic measuring 2.36 cm x 2.52 cm. No evidence of vascular invasion visualized.

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. No focal nodules or cystic lesions are observed.

The gall bladder is large measuring 5.51 cm x 4.65 cm, the lumen is significantly distended. Some areas of the wall appear mildly thickened with adherent debris and there is organization and stranding of this debris into a mucocele. There is minimal surrounding inflammation and no obvious free fluid observed. The bile duct is

normal/not visible. Findings are consistent with a mucocele. Consider close monitoring and initial medical management.

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. There is a large hypoechoic rounded lymph node visualized near the mesenteric root measuring 2.34 cm x 1.34 cm. The omentum is generally of normal echogenicity.

ULTRASONOGRAPHIC FINDINGS

- Mass lesion on the caudal pole of the right adrenal – Adrenomegaly could be consistent with neoplasia (e.g., adenoma, carcinoma, pheochromocytoma), hyperplasia, inflammation, other.
- Mature gallbladder mucocele, no surrounding inflammation noted.
- Prominent, hypoechoic lymph node at the mesenteric root – The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There is a mass effect on the right adrenal. This appears somewhat rounded. No obvious vascular invasion is visualized at this time. This has the appearance of an adenoma, but a carcinoma, pheochromocytoma, etc. are possible. This could be actively secreting hormone or be non-active. Based on the small size of the left adrenal, there is concern for possible hormone activity. Consider the following:

- If signs of cushings are present, consider adrenal function testing. I prefer an ACTH stimulation test combined with an adrenal panel to the University of Tennessee's endocrine lab to look for atypical adrenal hormones as well as cortisol. (other testing can suffice)
- If adrenal dependent cushings is suspected and supported by adrenal function testing consider medical therapy with lysodren or trilostane and/or consider surgical removal (recommend referral to a board certified veterinary surgeon and possible pre op CT)-This can be a challenging surgery with significant risk for complication

- Recommend blood pressure evaluation-if hypertensive consider testing catecholamine levels for a possible pheochromocytoma

- Due to the invasive nature of these masses a CT scan is recommended to evaluate for metastasis and vascular invasion.

- If no symptoms of cushings are present, consider either referral for surgery or if surgery is not an option consultation with a veterinary oncologist regarding chemotherapeutic options and continued monitoring with ultrasound (in 4-6 weeks) can be considered.

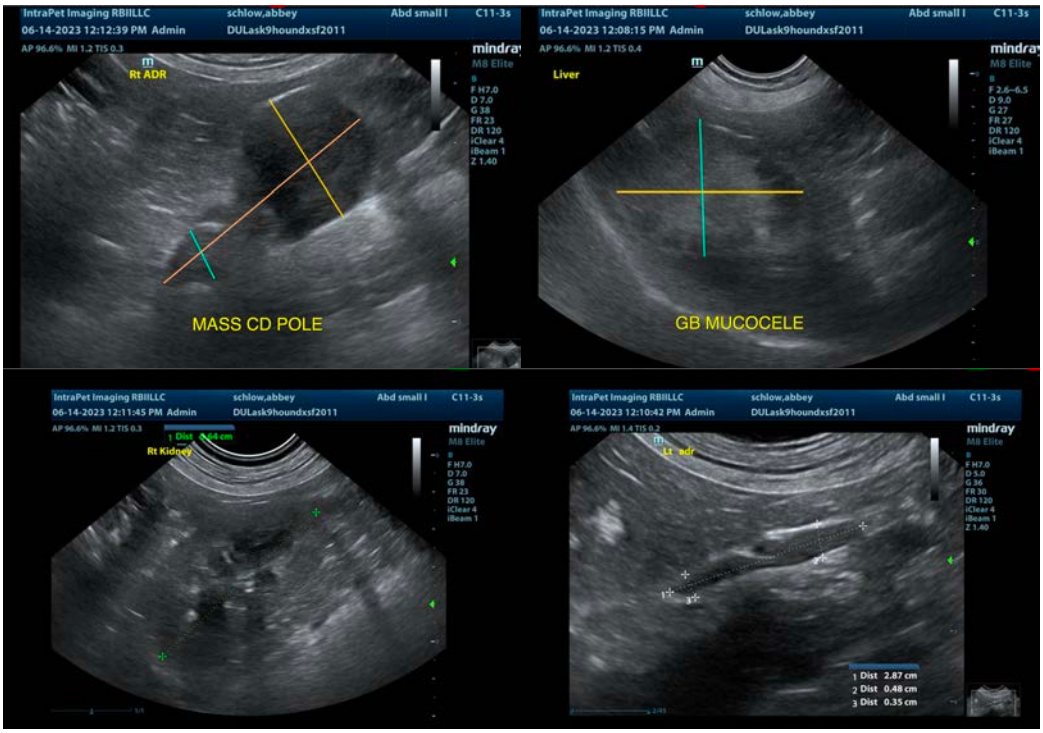
- Some aggressive adrenal tumors can grow quickly and there is risk for acute hemorrhage from vascular invasion.

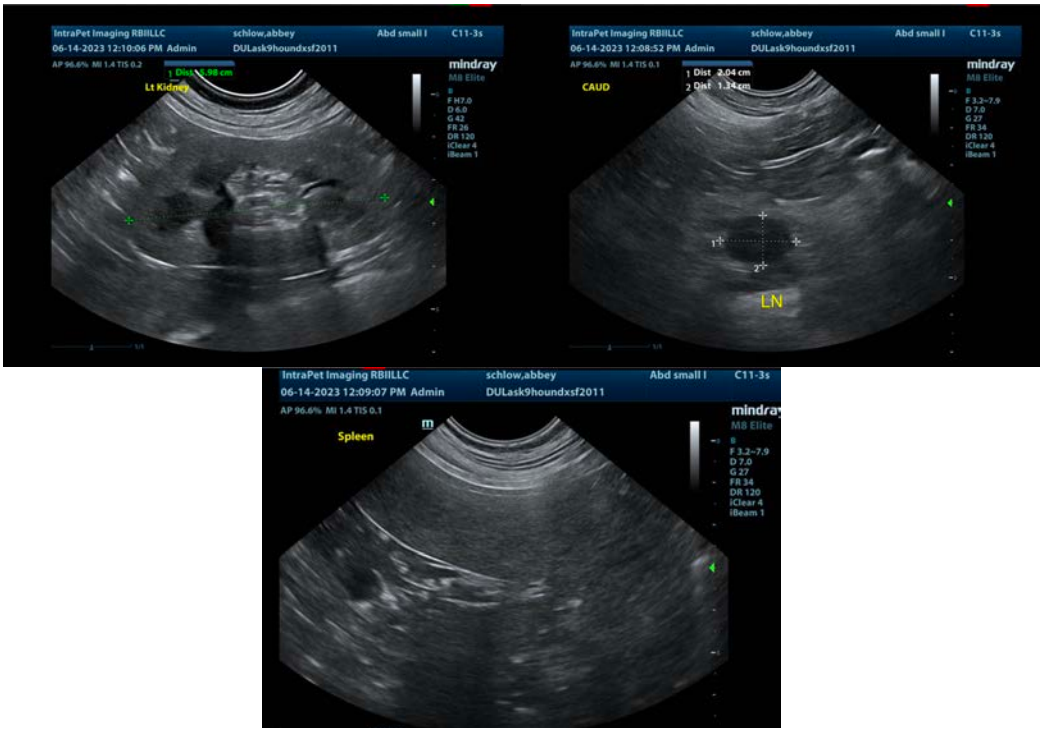
The ACTH stimulation test submitted is within normal limits. If this patient has signs of Cushing's disease, this could be a result of atypical hormone production, which may be detected with the adrenal panel/ACTH stimulation test described above.

Recommend three view thoracic radiographs to evaluate for possible concurrent thoracic disease/involvement.

Additionally, there is a mature mucocele visualized. This is likely contributing to the liver enzyme elevation as well. Options moving forward would include surgical cholecystectomy, or you could consider medical therapy (chronic Ursodiol therapy possibly with a course of antibiotics) and close monitoring of liver enzymes and the gallbladder with ultrasound for progression of the lesion, as some of these can remain clinically silent for extended periods of time, but unfortunately can progress to a surgical lesion as well.

The significance of the enlarged mesenteric lymph node is uncertain. This should be monitored, or if a window for aspiration is possible, consider cytologic evaluation.





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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