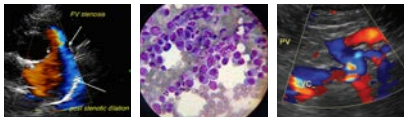
IMAGING PERFORMED BY

IntraPet.com



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

DATE

9/20/22

PATIENT

Cotton Goodwin

SPECIES

Canine

BREED

Poodle X

SEX

Spayed Female

AGE

4/20/09

WEIGHT

20.8 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Andi Parkinson RDMS

HOSPITAL NAME

Timonium AH

REFERRING VET

Dr. McMichael

INVOICE

41422

PRESENTING CLINICAL SIGNS

Urinary issues within the past 6 months. Urinary accidents and increased licking. Seems nauseous and off. Recurrent hyaline casts- 3+ repeatedly in urine sample; h/o cushings disease. on vetoryl. Recent STIM normal

Current Medications: Vetoryl 5mg once daily
Lab Results: Hyaline casts 3+, Urine culture pending. CBC: normal
Chem: normal
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, masses or cystic calculi.

The left kidney has a normal shape and size (4.86 cm). Overall echogenicity is slightly hyperechoic with poor 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 (4.53 cm). Overall echogenicity is slightly hyperechoic with mildly reduced 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 large and somewhat irregular in shape, measuring 0.90 cm at the cranial pole and 0.47 cm at the caudal pole, and 2.47 cm in length. It is observed in its normal position cranial to the left renal artery. It is atypical in appearance in that the cranial pole is hyperechoic and large with an ill-defined nodule measuring 1.33 cm x 0.94 cm. There is no evidence of vascular invasion visualized.

The right adrenal gland is normal in size measuring 0.52 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. There are numerous hyperechoic shadowing foci within the spleen, the largest of which measures at 0.77 cm.

Liver

The liver is borderline large in size, and normal in echogenicity with smooth peripheral margins. The parenchyma is mildly heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. There is a cystic lesion visualized on the left side of the liver measuring 1.99 cm x 1.55 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. Duodenum wall measures 0.42 cm. Jejunum wall measures 0.37 cm. 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

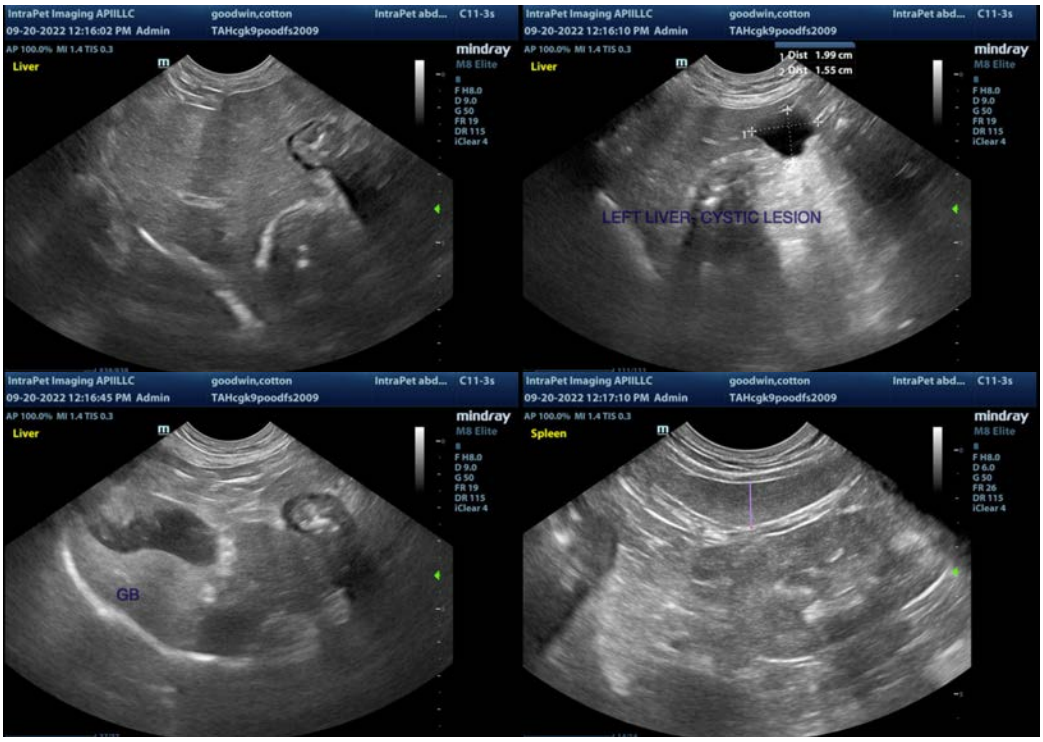
- Hyperechoic nodule in the cranial pole of the left adrenal gland – Left adrenomegaly could be consistent with neoplasia (e.g., adenoma, carcinoma, pheochromocytoma), hyperplasia, inflammation, other.
- Decreased corticomedullary distinction in both kidneys – The bilateral renal findings are consistent with age-related change.
- Shadowing hyperechoic foci in the spleen – The appearance of these lesions is most consistent with benign lesions (myelolipomas?). Recommend continued monitoring.
- Cystic lesion on the left side of the liver – most consistent with a benign hepatic cyst.
- 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.

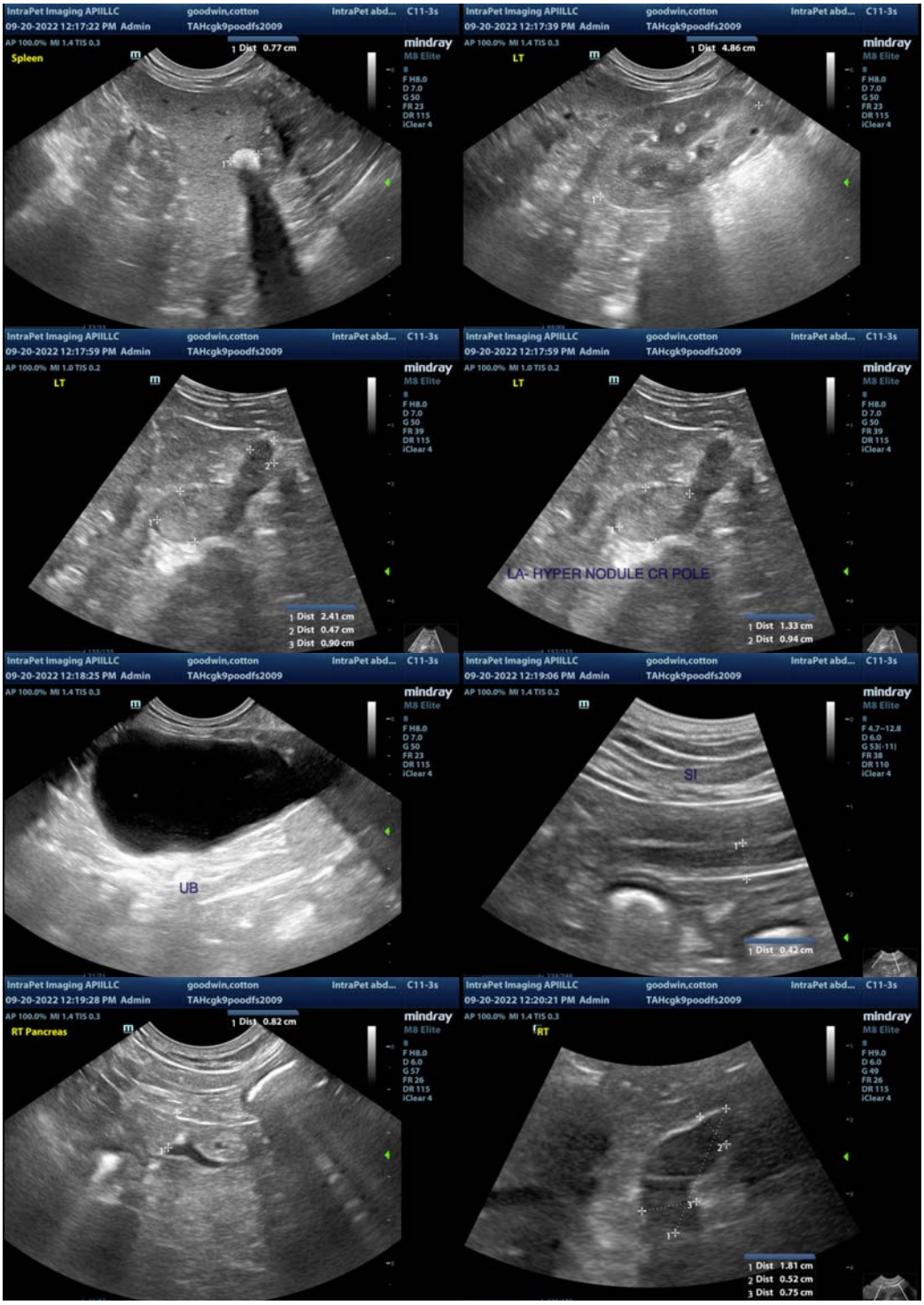
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There is a hyperechoic nodule in the cranial pole of the left adrenal gland. This lesion could represent a benign or neoplastic nodule, and this lesion could be secreting hormone or be non-active. Based on the adequate control of cortisol with medical management, this good response to therapy trends towards a possible diagnosis of pituitary dependent hyperadrenocorticism with a nodule that could be active or non-active. A CT scan of the pituitary would likely be necessary to obtain more information. Based on the appearance of this adrenal nodule, consider the following:

- Recommend blood pressure evaluation. If hypertensive, consider testing catecholamine levels for a possible pheochromocytoma.
- Due to the potential invasive nature of some adrenal lesions, you could consider a contrast CT scan to evaluate for metastasis and possible vascular invasion. Alternately, consider continued monitoring with ultrasound (recheck in 2-3 months).
- Many of these lesions can be benign and incidental in nature, but others can be aggressive tumors and grow quickly with risk for acute hemorrhage from vascular invasion. Unfortunately, it is difficult to determine this with a single ultrasound.
- Recommend continued medical management of the Cushing's.
- Recommend three view thoracic radiographs to evaluate for possible concurrent thoracic disease/involvement.

The kidneys have mildly reduced corticomedullary distinction, most consistent with age related change. Based on the history of Cushing's and the adrenal nodule, recommend the previously discussed blood pressure evaluation and a urine protein to creatinine ratio due to the presence of hyalin casts.




IntraPet Imaging APIILLC
goodwin,cotton
IntraPet abd... C11-3s
09-20-2022 12:17:22 PM Admin
TAHcgk9poodfs2009
Spleen
1 Dist 0.77 cm
mindray
M8 Elite
IntraPet Imaging APIILLC
goodwin,cotton
IntraPet abd... C11-3s
09-20-2022 12:17:39 PM Admin
TAHcgk9poodfs2009
LT
1 Dist 4.86 cm
mindray
M8 Elite
IntraPet Imaging APIILLC
goodwin,cotton
IntraPet abd... C11-3s
09-20-2022 12:17:59 PM Admin
TAHcgk9poodfs2009
LT
1 Dist 2.41 cm
2 Dist 0.47 cm
3 Dist 0.90 cm
mindray
M8 Elite
IntraPet Imaging APIILLC
goodwin,cotton
IntraPet abd... C11-3s
09-20-2022 12:17:59 PM Admin
TAHcgk9poodfs2009
LT
LA- HYPER NODULE CR POLE
1 Dist 1.33 cm
2 Dist 0.94 cm
mindray
M8 Elite
IntraPet Imaging APIILLC
goodwin,cotton
IntraPet abd... C11-3s
09-20-2022 12:18:25 PM Admin
TAHcgk9poodfs2009
UB
mindray
M8 Elite
IntraPet Imaging APIILLC
goodwin,cotton
IntraPet abd... C11-3s
09-20-2022 12:19:06 PM Admin
TAHcgk9poodfs2009
SI
1 Dist 0.42 cm
mindray
M8 Elite
IntraPet Imaging APIILLC
goodwin,cotton
IntraPet abd... C11-3s
09-20-2022 12:19:28 PM Admin
TAHcgk9poodfs2009
RT Pancreas
1 Dist 0.82 cm
mindray
M8 Elite
IntraPet Imaging APIILLC
goodwin,cotton
IntraPet abd... C11-3s
09-20-2022 12:20:21 PM Admin
TAHcgk9poodfs2009
RT
1 Dist 1.81 cm
2 Dist 0.52 cm
3 Dist 0.75 cm
mindray
M8 Elite

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.

Kathleen Sennello DVM,MS, Diplomate ACVIM (Small animal Internal Medicine)
kathleen.sennello@sonopath.com