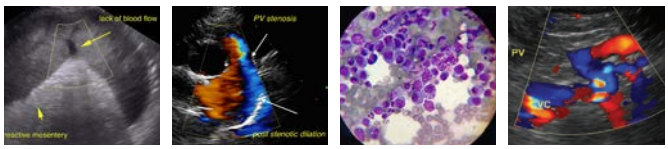
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



SonoPath.com™
1-800-838-4268 info@sonopath.com

PATIENT

Bella Epstein

SPECIES

Canine

BREED

Bichon Frise X

SEX

Spayed Female

AGE

12 Years

WEIGHT

15 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Jessica Miller

HOSPITAL NAME

Whippany Vet Hospital

REFERRING VET

Dr. Cordero

INVOICE

38546

DATE

6/8/22

PRESENTING CLINICAL SIGNS

R/o bladder stones. Frequent urination, increase water freq. no straining
Abnormal PE/Chem/CBC/UA Results: Trig 410, Plat 430 UA: pH 8, Occult Blood +2, Phosphate 430 SG: 1.031

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with mild primarily suspended echogenic debris present. 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 calculi. Echogenic debris of this type can be associated with small crystals, cellular debris and proteinaceous debris.

The left kidney has a normal shape and size (4.53 cm) with significant pyelectasia at 0.57 cm and nephroliths visualized in the renal pelvis measuring 0.49 and 0.37 cm. Proximal ureteral dilation is also visualized at 0.3 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. No evidence of infarcts. Renal vasculature is normal.

The right kidney has a normal shape and size (4.75 cm) with pinpoint 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, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is large in size measuring 0.42 cm at the cranial pole, 1.99 cm at the caudal pole, and 3.96 cm in length. It is observed in its normal position cranial to the left renal artery. It is abnormal in appearance in that the caudal pole is severely enlarged and hyperechoic, creating a mass effect. This mass effect impinges on the local vasculature, but obvious invasion is not visualized.

The right adrenal gland is large in size measuring 2.34 cm at the cranial pole, 0.71 cm at the caudal pole, and 3.17 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 very abnormal in appearance in that it is enlarged with mixed echogenicity and large, hyperechoic foci within the parenchyma. This lesion impinged on local vasculature, but no direct vascular invasion is visualized.

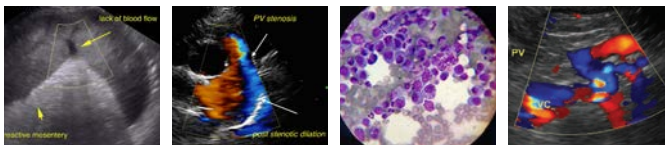
Spleen

The spleen is subjectively normal in size. The spleen echotexture is heterogenous and mildly mottled, 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 lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. There is a mild amount of non-organized echogenic debris. The cystic and common bile ducts are normal/not visible.



SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Bella Epstein

SPECIES

Canine

BREED

Bichon Frise X

SEX

Spayed Female

AGE

12 Years

WEIGHT

15 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Jessica Miller

HOSPITAL NAME

Whippany Vet Hospital

REFERRING VET

Dr. Cordero

INVOICE

38546

DATE

6/8/22

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

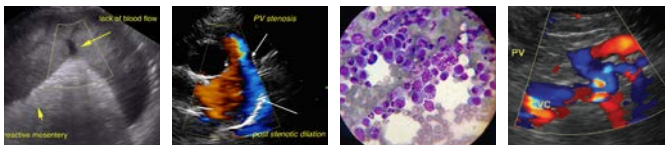
Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

ULTRASONOGRAPHIC FINDINGS

- Bilateral adrenal masses – This could be a severe form of bilateral hyperplasia, metastatic neoplasia, or individual, concurrent tumors.
- Echogenic debris in the urinary bladder – The echogenic debris in the bladder lumen could be consistent with cells, crystals, and/or mucus.
- Decreased corticomedullary distinction in both kidneys with moderate sized stones visualized in the left renal pelvis, causing likely partial obstruction.
- Mildly mottled spleen – The diffuse splenic changes are non-specific and could be consistent with lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to get a definitive diagnosis.
- Mildly heterogeneous liver – 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.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Both adrenal glands are severely enlarged and irregular. This could be consistent with bilateral atypical severe hyperplasia associated with pituitary dependent hyperadrenocorticism, but the adrenals appear more mass-like, and I'm concerned this could be concurrent masses. Options depend on general patient health and the owner's willingness for extensive surgery, etc. I would start by:



SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Bella Epstein

SPECIES

Canine

BREED

Bichon Frise X

SEX

Spayed Female

AGE

12 Years

WEIGHT

15 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Jessica Miller

HOSPITAL NAME

Whippany Vet Hospital

REFERRING VET

Dr. Cordero

INVOICE

38546

DATE

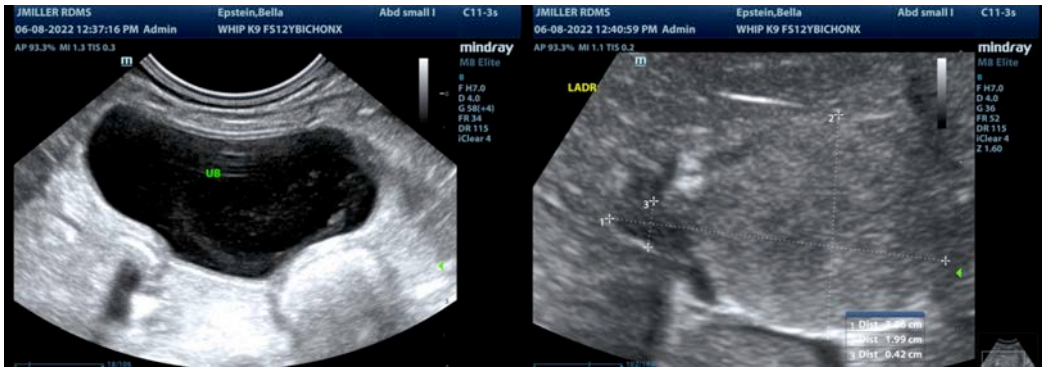
6/8/22

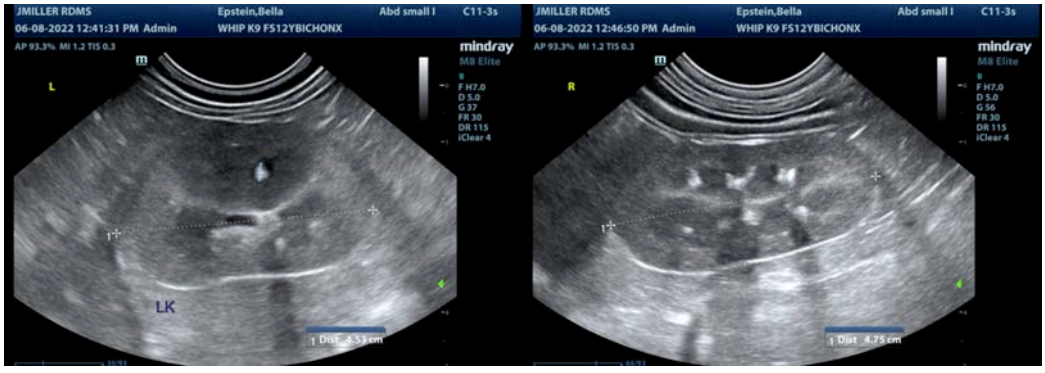
- Performing a urine culture, urinalysis, and blood pressure evaluation. If blood pressure is elevated, then consider measuring urine catecholamines to look for a pheochromocytoma.
- If signs of pollakiuria and PU/PD resolve with treatment of urinary tract infection, then non-ahormone secreting mass lesions could be possible. If PU/PD persists, then consider testing for adrenal hormone excess. I would consider an adrenal panel to University of Tennessee with an ACTH stimulation test to look for atypical hormone production, etc.
- If surgery is something the owners would consider, then I would recommend referral to a tertiary veterinary facility for a CT scan and assessment for surgery (bilateral adrenalectomy). If surgery would not be considered, and a cortisol excess is documented, then medical treatment could be considered with Lysodren or Trilostane. This can be challenging, and referral to a veterinary internist may be desired.
- If there are no signs of Cushing's, then options are continued monitoring with ultrasound +/- surgery. Regardless, advanced imaging should be performed to look for evidence of vascular invasion.

There is echogenic debris in the urinary bladder. Recommend urinalysis and culture. The changes observed in the liver are likely associated with a steroid/vacuolar hepatopathy. The mildly mottled spleen can be monitored with ultrasound or a fine needle aspirate is an option.

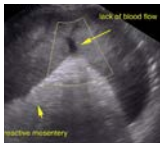
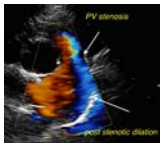
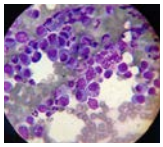
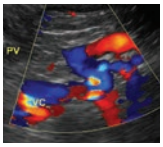
Consider three view thoracic radiographs to rule out concurrent thoracic disease/involvement.

There are nephroliths evident in the left and right kidneys. The nephroliths in the left kidney are large, and are situated within the renal pelvis, where there is moderate dilation. These changes are suspicious for a partial obstruction. Recommend treatment for pyelonephritis if urine culture is positive, and continued monitoring of the left kidney for possible obstruction.





SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Bella Epstein

SPECIES

Canine

BREED

Bichon Frise X

SEX

Spayed Female

AGE

12 Years

WEIGHT

15 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Jessica Miller

HOSPITAL NAME

Whippany Vet Hospital

REFERRING VET

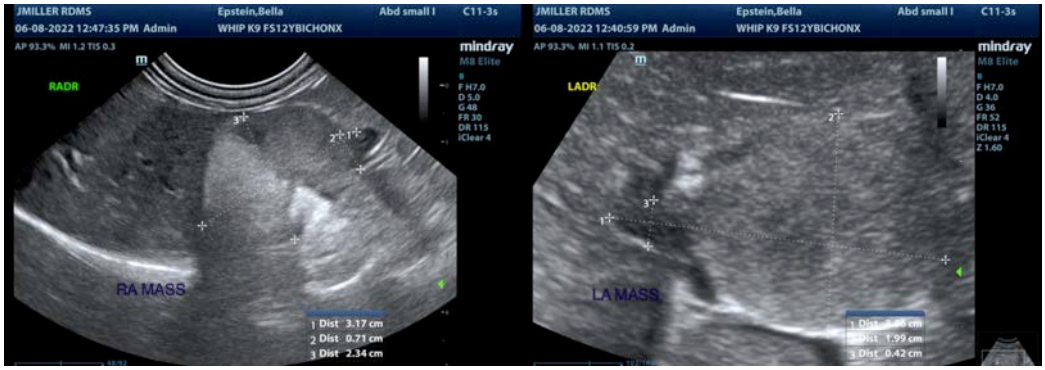
Dr. Cordero

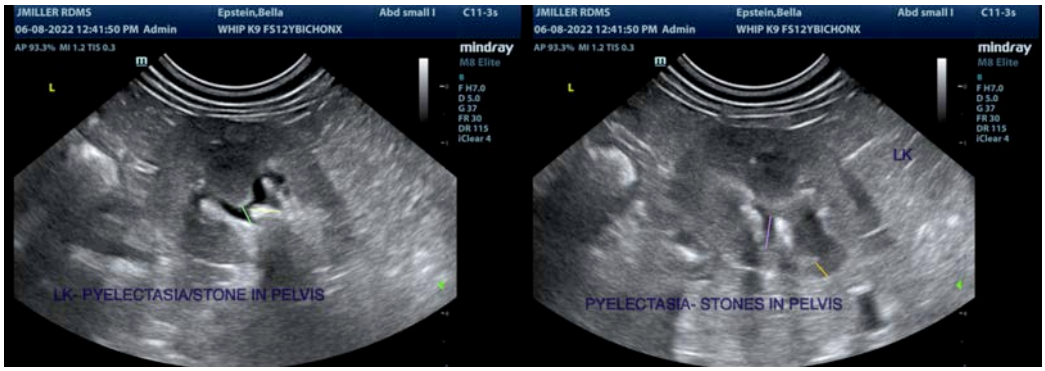
INVOICE

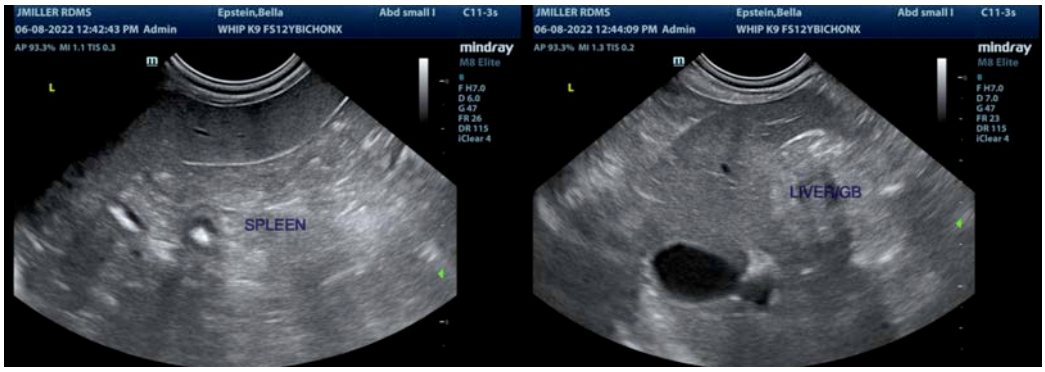
38546

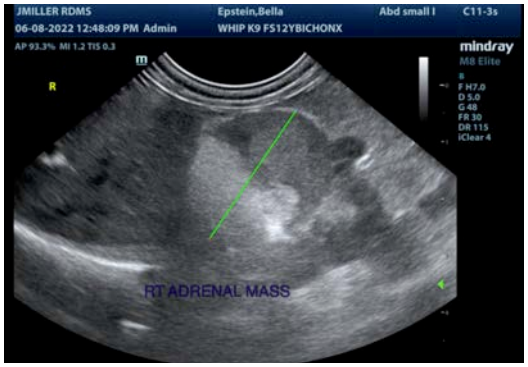
DATE

6/8/22

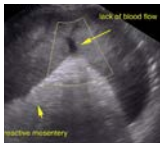
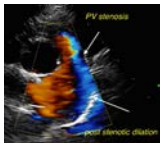
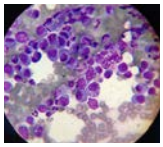
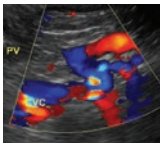








SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Bella Epstein

SPECIES

Canine

BREED

Bichon Frise X

SEX

Spayed Female

AGE

12 Years

WEIGHT

15 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Jessica Miller

HOSPITAL NAME

Whippany Vet Hospital

REFERRING VET

Dr. Cordero

INVOICE

38546

DATE

6/8/22

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