



PATIENT

Bruno Yannuzi

PRESENTING CLINICAL SIGNS

History: Suddenly Blind the other day, Abdomen seems distended. Not known to be PU/PD, lethargic, ALT 176 U/L. Rest NSF, T4 normal + PLR's, No menace, 4dx neg

SPECIES

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

BREED

Bichon

Urinary System

The urinary bladder is adequately filled. The wall is smooth and regular. No abnormalities are present with the trigone or proximal urethra, and there is no evidence of sediment, cystoliths, polyps or a mass.

The prostate is homogenous and measures 0.69 cm, which is within normal limits for a neutered male.

SEX

Neutered male

The left kidney is within normal limits in size for the patient's weight (4.93 cm). The cortex is moderately to markedly hyperechoic and a mild loss of the normal definition of the cortico-medullary junction is present. Very small, punctate, mineralizations of the diverticulae are present without evidence of nephroliths or pyelectasia. The surrounding mesentery is extremely hyperechoic. These changes are highly suggestive of glomerulonephritis or pyelonephritis.

AGE

7 years

The right kidney is within normal limits in size for the patient's weight (5.3 cm). The cortex is mildly hyperechoic and a mild loss of the normal definition of the cortico-medullary junction is present. Very small, punctate, mineralizations of the diverticulae are present without evidence of nephroliths or pyelectasia. The surrounding mesentery is extremely hyperechoic. These changes are highly suggestive of glomerulonephritis or pyelonephritis.

WEIGHT

22.5 lbs

INTERPRETED BY

Lisa Carioto, DVM,
DVSc, Diplomate
ACVIM

Adrenal Glands

The left adrenal gland is mildly enlarged for a dog of Bruno's stature, measuring 0.63 cm at the cranial pole, which also has a nodule. The caudal pole measures 0.55 cm and 1.62 cm in length. No abnormalities are noted in the gland's overall architecture, echogenicity or echotexture. The phrenico-abdominal vein and surrounding vasculature and mesentery are unremarkable.

IMAGING PERFORMED BY

Dr. Ammeraal

The right adrenal gland is also mildly enlarged at 0.62 cm at the caudal pole. The cranial pole has a nodule, which measures 0.53 cm. It measures 0.58 cm at its center and 1.84 cm in length. No abnormalities are noted in the gland's overall architecture, echogenicity or echotexture. The phrenico-abdominal vein and surrounding vasculature and mesentery are unremarkable.

HOSPITAL NAME

Sova AH

REFERRING VET

Dr. Sova

Spleen

The spleen is within normal limits in size, architecture, echotexture, and echogenicity. The capsule is smooth. No abnormalities are observed with its vasculature, i.e. congestion and thrombi are not identified.

INVOICE

97922

Liver

DATE

3/29/22



PATIENT	Hepatomegaly is present with rounded, but smooth borders. It is markedly and diffusely hyperechoic; it is isoechoic to the spleen. A small number of hypoechoic nodules of variable size are visualized. The latter are suggestive of nodular hyperplasia. Target lesions are not observed. The hepatomegaly and diffuse hyperechogenicity are suggestive of a vascular hepatopathy; however, cholestasis cannot be excluded.
Bruno Yannuzi	
SPECIES	
Canine	A rounded, right liver lobe is observed. Its borders are mildly to moderately irregular, causing a mass effect, which measures at least 4.13 cm in diameter and 3.0 cm in length. Its echogenicity is somewhat similar to the remaining liver although there are hyperechoic patches haphazardly dispersed throughout. Differential diagnoses for the mass effect include a benign adenoma, however, an adenocarcinoma, which is considered less likely, cannot be excluded.
BREED	
Bichon	
SEX	
Neutered male	A moderate amount of echogenic material (sludge) is present within the lumen of the gall bladder, which is mildly dilated. The sludge is free floating, but has also settled by gravity, and inspissated, hyperechoic sludge, in the form of nodules, is attached to the wall. There are no signs of an obstruction. Signs of cholecystitis are not appreciated, however, cholestasis cannot be excluded. The remainder of the biliary system does not show any abnormalities.
AGE	
7 years	Gastrointestinal
WEIGHT	
22.5 lbs	The gastric wall and pylorus are normal in thickness. There is no loss of definition of the normal architecture of the layers of the stomach wall. No obvious abnormalities are observed with its peristalsis.
INTERPRETED BY	
Lisa Carioto, DVM, DVSc, Diplomate ACVIM	The small intestinal wall thickness is within normal limits and there is no evidence of dilation. The definition of the wall layers is preserved. The colonic wall is not thickened and mural detail is considered normal. There are no obvious signs of a mass, foreign body, infiltrative disease or an obstruction.
IMAGING PERFORMED BY	
Dr. Ammeraal	Pancreas
HOSPITAL NAME	
Sova AH	Both the left and right limbs of the pancreas have a coarse echotexture and are mildly heterogeneous. These changes are most likely due to nodular hyperplasia and areas of fibrosis. These changes are considered age related and possibly secondary to previous episodes of pancreatitis, respectively. There are no signs of active pancreatitis.
REFERRING VET	
Dr. Sova	Other
INVOICE	
97922	Lymph nodes: No abnormalities are observed.
DATE	Abdominal effusion is not visualized.
3/29/22	ULTRASONOGRAPHIC FINDINGS
	<ul style="list-style-type: none"> Bruno's clinical signs are highly suggestive of sudden acquired retinal degeneration (SARD), which has been associated with hyperadrenocorticism in some patients. Both adrenal glands are at the high end of normal reference range for a dog of Bruno's stature, which may be suggestive of hyperplasia secondary to a pituitary dependent tumor. However, hyperplasia



PATIENT

Bruno Yannuzzi

secondary to chronic stress or illness cannot be excluded. Further diagnostics for hyperadrenocorticism are recommended.

SPECIES

Canine

- The hepatomegaly and diffuse hyperechogenicity of the liver are highly suggestive of a vacuolar hepatopathy, which may occur due to stress (chronic illness) or hyperadrenocorticism. Differential diagnoses, such as hepatitis and cholangitis/cholangiohepatitis, are considered less likely, however, cholestasis cannot be excluded. The hypoechoic nodules observed are most likely due to nodular regeneration, which is a benign, age-related change. There are no obvious signs of neoplasia.

BREED

Bichon

- The mass effect affecting one of the right lobes of the liver is highly suggestive of a benign adenoma, however, as mentioned above, a well-differentiated, adenocarcinoma cannot be excluded. Note, a fine needle aspirate is not always successful in differentiating the two.

SEX

Neutered male

- The renal changes may be due to glomerulonephritis associated with hyperadrenocorticism. However, pyelonephritis cannot be excluded despite the absence of sonographic signs, particularly with the hyperechoic mesentery surrounding both kidneys.

AGE

7 years

- Age related changes are observed with the pancreas and are not considered clinically significant.

WEIGHT

22.5 lbs

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Further diagnostics for hyperadrenocorticism are recommended.

A urinalysis and urine culture and sensitivity are recommended to exclude pyelonephritis. A broad spectrum antibiotic is suggested pending the results.

A urine protein: creatinine ratio is suggested if the urine culture is negative.

An arterial blood pressure is recommended to rule out hypertension associated with hyperadrenocorticism.

Treatment with amlodipine is recommended if hypertension is diagnosed. If both proteinuria and hypertension are present, telmisartan and amlodipine may be used in conjunction with one another.

Referral to a veterinary ophthalmologist may also be required.

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HOSPITAL NAME

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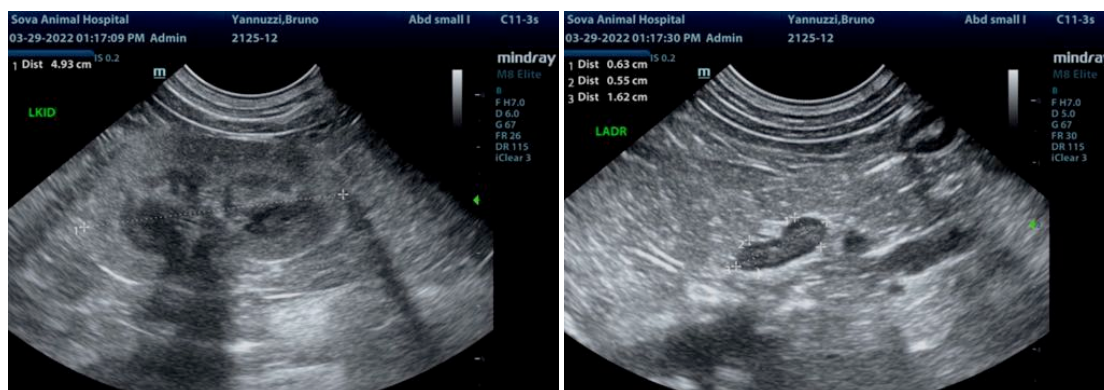
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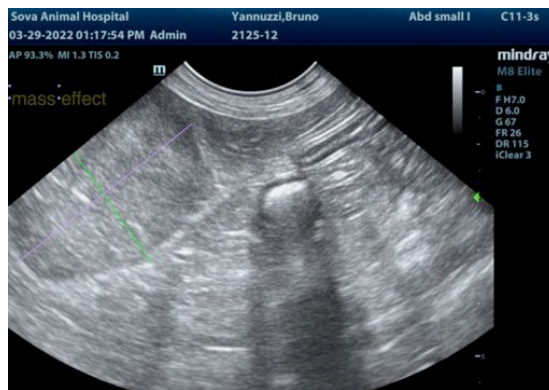
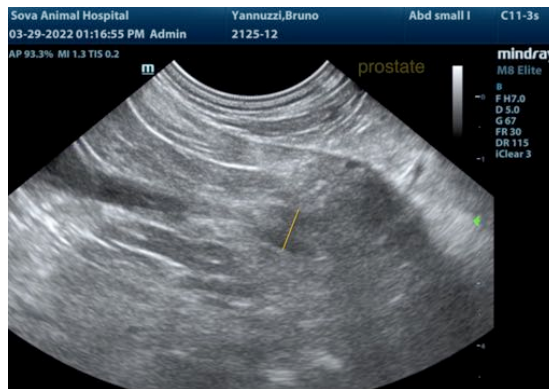
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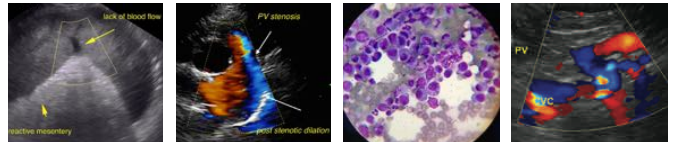
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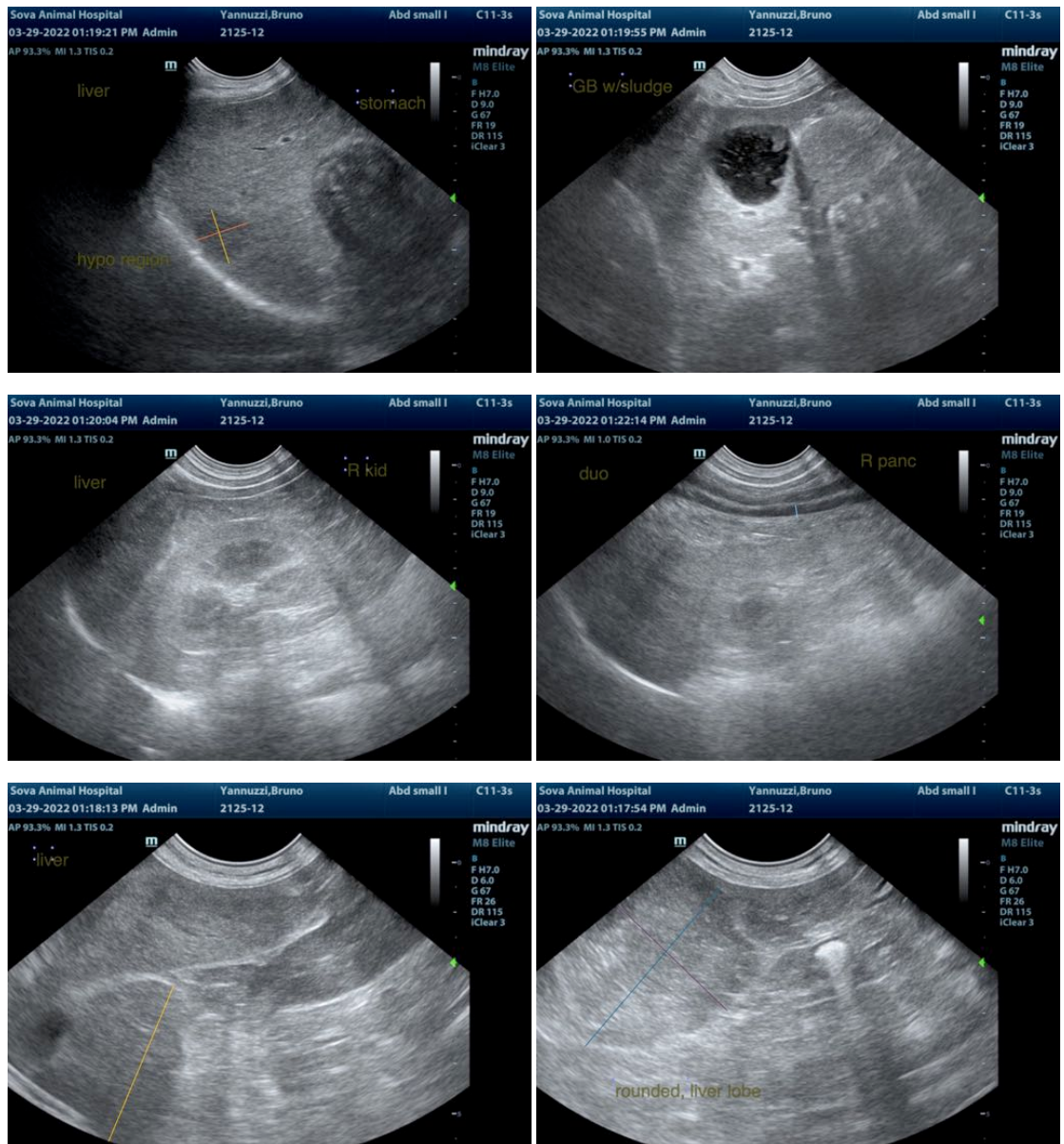
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Lisa Carioto, DVM, DVSc, Diplomate ACVIM

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