



## PATIENT

Rocko Marsh

## SPECIES

Canine

## BREED

Mix

## SEX

Neutered male

## AGE

8 years

## WEIGHT

48 lbs

## INTERPRETED BY

Dr. Alicia Angosto  
Guerrero

## IMAGING PERFORMED BY

Nikki Kollman, RVT

## HOSPITAL NAME

Airpark AH

## REFERRING VET

Dr. Kennedy

## INVOICE

73410

## DATE

3/11/26

## PRESENTING CLINICAL SIGNS

- Chronic gastrointestinal issues (refusing food, flatulence, increased borborygmi). O tried switching foods, which helped, but signs returned shortly after. Increase drinking as well since the GI issues have arisen. Has a history of pancreatitis.
- Has a lipoma on ventrum, has been there. New mass is LH, lateral aspect of distal metatarsus-fine needle aspirate inconclusive. Have not run any blood work yet. Grade 2-3/6 heart murmur is new

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### Urinary System

The bladder lumen is not completely distended, and the wall of the urinary bladder measures 3.3 mm and appears smooth. Due to underdistension, the wall measurement may be overestimated. The urine is anechoic. Normal appearance of the bladder neck and proximal urethra. There are no calculi and no evidence of inflammatory or neoplastic changes.

The left kidney is normal in shape and size: 4.54×2.90 cm, and the thickness of the cortex is 0.58 cm in the sagittal plane.

The right kidney is normal in shape and size: 4.99×2.79 cm, and the thickness of the cortex is 0.48 cm in the sagittal plane.

Both kidneys: the cortex demonstrates normal echogenicity. The corticomedullary ratio is normal and corticomedullary definition is preserved. There is no evidence of pyelectasia, nephroliths, or hydronephrosis.

### Adrenal Glands

Both adrenal glands show normal shape and echogenicity. Dorsoventral diameters measured in the sagittal plane (maximum measurements from two acquisitions are shown): the left adrenal gland measures 0.48 cm at the cranial pole and 0.50 cm at the caudal pole. The right adrenal gland was suboptimally visualized, although it appears to measure approximately 0.72–0.76 cm.

### Spleen

Splenic thickness is 1.48 cm. The parenchyma demonstrates normal echogenicity and fine homogeneous echotexture with a few small myelolipomas, the largest measuring 0.62×1 cm. The splenic capsule is smooth and regular.

### Liver

The liver is enlarged (hepatomegaly) with rounded margins, extending toward the lesser curvature of the stomach. The liver parenchyma appears uniform and hyperechoic compared to the falciform fat, with a fine echotexture and mild attenuation of the ultrasound beam. No hepatic lymphadenopathy is observed.



## PATIENT

Rocko Marsh

The gallbladder lumen is moderately distended. The wall is thin and the contents contain a small amount of biliary sludge. No dilation of the cystic duct or common bile duct is observed.

## SPECIES

Canine

### *Gastrointestinal*

The stomach is empty and folded, with mural thickness (1.84 mm) and preserved wall layering. The pylorus measures 4.30 mm.

## BREED

Mix

Duodenum: 3.10 mm. Jejunum: 4.40 mm, with preserved wall layering. Ileum: 2.10 mm, with preserved wall layering. The ileocecal junction was not visualized. No ultrasonographic signs of inflammation, ileus, or foreign material are identified.

## SEX

Neutered male

Colon: 0.92 mm, with formed feces in the descending segment.

## AGE

8 years

### *Pancreas*

Pancreatic body measures 7.75 mm and appears slightly hypoechoic compared to the surrounding mesenteric fat. The evaluated pancreatic regions do not show evidence of overt inflammation or neoplastic disease.

## WEIGHT

48 lbs

## INTERPRETED BY

Dr. Alicia Angosto  
Guerrero

### *Peritoneal Cavity*

No sonographic evidence of abdominal effusion, peritonitis, or lymphadenomegaly is identified. The lymph node at the iliac trifurcation appears normal

## IMAGING PERFORMED BY

Nikki Kollman, RVT

## ULTRASONOGRAPHIC FINDINGS

### PRIMARY FINDINGS

- Hepatomegaly with diffuse hyperechogenicity and mild acoustic attenuation, consistent with vacuolar hepatopathy.
- Possible mild enlargement of the right adrenal gland (approximately 0.72–0.76 cm), although visualization was suboptimal.

## HOSPITAL NAME

Airpark AH

### SECONDARY FINDINGS

- Small incidental splenic myelolipomas.
- Mild biliary sludge.

## REFERRING VET

Dr. Kennedy

## INVOICE

73410

## DATE

3/11/26



## PATIENT

Rocko Marsh

## SPECIES

Canine

## BREED

Mix

## SEX

Neutered male

## AGE

8 years

## WEIGHT

48 lbs

## INTERPRETED BY

Dr. Alicia Angosto  
Guerrero

## IMAGING PERFORMED BY

Nikki Kollman, RVT

## HOSPITAL NAME

Airpark AH

## REFERRING VET

Dr. Kennedy

## INVOICE

73410

## DATE

3/11/26

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The most notable finding in this examination is hepatomegaly with diffusely increased hepatic echogenicity, fine parenchymal echotexture, and mild ultrasound beam attenuation. This ultrasonographic pattern is most consistent with vacuolar hepatopathy, which in dogs commonly reflects hepatocellular glycogen accumulation secondary to endocrine or metabolic disease, particularly hyperadrenocorticism. However, similar hepatic changes may also occur with steroid exposure, metabolic hepatopathy, hyperlipidemia, obesity, or chronic systemic disease, and therefore correlation with clinical findings and laboratory results is recommended.

The right adrenal gland appears mildly enlarged, although visualization was suboptimal. In dogs of this size, adrenal dorsoventral thickness approaching or exceeding 7 mm may raise suspicion for adrenal hyperplasia or functional adrenal disease, particularly in the context of hepatic changes compatible with vacuolar hepatopathy. The left adrenal gland measures within normal limits. If the right adrenal measurement is accurate, this asymmetry could represent early adrenal hyperplasia or mild unilateral enlargement, although measurement uncertainty due to suboptimal visualization must be considered.

The spleen demonstrates small focal hyperechoic nodules consistent with splenic myelolipomas, which are common benign incidental findings in dogs and are not considered clinically significant.

No ultrasonographic abnormalities were identified that would clearly explain the patient's chronic gastrointestinal signs. It should be noted that several causes of chronic gastrointestinal disease, including food-responsive enteropathy, early inflammatory enteropathy, or functional gastrointestinal disorders, may occur without detectable ultrasonographic abnormalities.

The pancreas appears slightly hypoechoic relative to the surrounding mesenteric fat, but no focal enlargement, peripancreatic fat inflammation, or ductal changes are identified to support active pancreatitis. Given the patient's history of pancreatitis, these findings may represent normal variation or subtle chronic pancreatic change, although no definitive ultrasonographic evidence of active pancreatic inflammation is present.

### Recommendations

- Correlation with clinical signs and laboratory testing is recommended.
- Given the hepatic appearance and possible right adrenal enlargement, screening for hyperadrenocorticism may be considered, particularly if clinical signs such as polyuria or polydipsia are present, at the discretion of the attending clinician.
- Baseline serum biochemistry, if not already performed, may also help evaluate for liver enzyme elevation, metabolic disease, or other systemic abnormalities.



**PATIENT**

Rocko Marsh

**SPECIES**

Canine

**BREED**

Mix

**SEX**

Neutered male

**AGE**

8 years

**WEIGHT**

48 lbs

**INTERPRETED BY**

Dr. Alicia Angosto Guerrero

**IMAGING PERFORMED BY**

Nikki Kollman, RVT

**HOSPITAL NAME**

Airpark AH

**REFERRING VET**

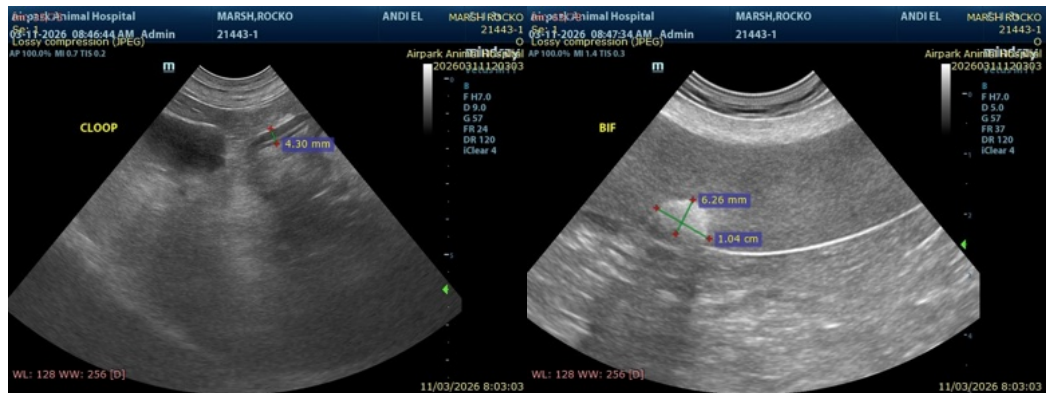
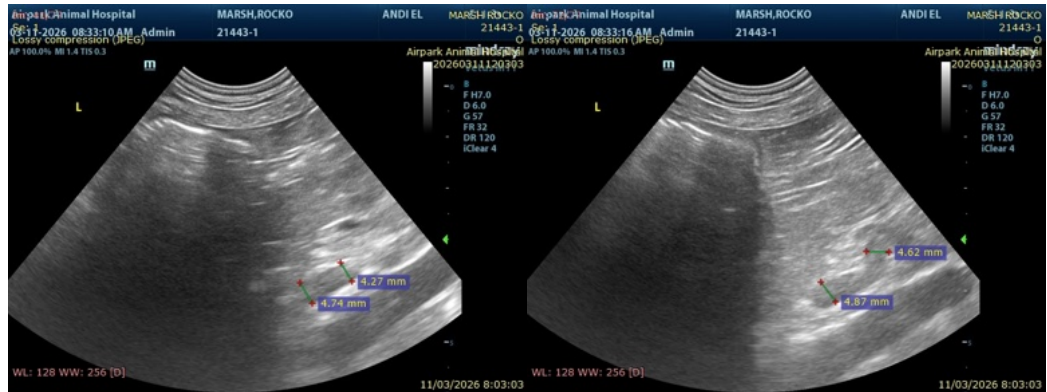
Dr. Kennedy

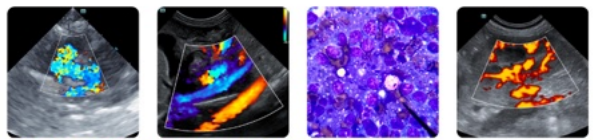
**INVOICE**

73410

**DATE**

3/11/26





## PATIENT

Rocko Marsh

## SPECIES

Canine

## BREED

Mix

## SEX

Neutered male

## AGE

8 years

## WEIGHT

48 lbs

## INTERPRETED BY

Dr. Alicia Angosto Guerrero

## IMAGING PERFORMED BY

Nikki Kollman, RVT

## HOSPITAL NAME

Airpark AH

## REFERRING VET

Dr. Kennedy

## INVOICE

73410

## DATE

3/11/26



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.

Alicia Angosto Guerrero, DMV, PgDip, MSc.

MV Esp Ultrasound in Domestic and Wild Animals

[info@SonoPath.com](mailto:info@SonoPath.com)