



PATIENT

Carter Rosenberg

SPECIES

Canine

BREED

Maltese

SEX

Male

AGE

6 months

WEIGHT

6.4 lbs

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Reyes

HOSPITAL NAME

Mobile Vet Ultrasound

REFERRING VET

Dr. Santiago

INVOICE

30388

DATE

5/13/22

PRESENTING CLINICAL SIGNS

History: Pet presented for second opinion on elevated liver enzymes and bile acids prior to neuter. Pet has no clinical signs and owner has no concerns. Previous vet declined neuter due to concern for liver shunt

Abnormal PE/Chem/CBC/UA Results: ALT: 122 Bile acids: Pre: 3.2 Post: 40.2

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The ureters were not visible which is normal. No uroliths or sediment were visualized and anechoic urine was present. No evidence of inflammatory or neoplastic changes was noted. Ureteral papillae were normal.

The **kidneys** revealed normal size and structure, corticomedullary definition and ratio for this age. The cortices presented largely uniform texture with normal echogenic relationship to liver and spleen. Medullary structure differed distinctly from the cortex and no evidence of pelvic dilation was present. The capsules were acceptably uniform without significant irregularities. The left kidney measured 3.0 cm. The right kidney measured 3.0 cm.

Adrenal Glands

Both **adrenal glands** were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The left adrenal gland measured 0.3 cm. The right adrenal gland measured 0.4 cm.

Spleen

The **spleen** presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule was smooth without noticeable expansion or deviation from within the spleen or adjacent pathology. The splenic vasculature demonstrated normal volume without signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarctual changes was noted.

Liver

The **liver** is subnormal in size. The portal vein measured 0.5 cm, vena cava measured 0.5 cm and the aorta measured 0.5 cm. There is no evidence of extrahepatic shunting. The gallbladder presented acceptably thin walls with primarily anechoic content. The cystic and common bile ducts were normal. No pathological hepatic lymphadenopathy was evident. No overt structural evidence of inflammatory, infiltrative or regenerative pathology was evident.



PATIENT

Gastrointestinal

Carter Rosenberg

Examination of the **gastrointestinal tract** revealed a stomach and intestine free of stasis, of normal wall thickness, acceptable curvilinear mural detail, and peristaltic activity. Small and large intestine demonstrated normal luminal chyme and stool consistency respectively. No obstructive or overt infiltrative disease was noted. No associated abnormal lymphatic activity was noted.

SPECIES

Canine

BREED

Maltese

Pancreas

The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Pancreatic duct and capsular contour were acceptably normal and parenchyma respected normal curvilinear patterns. No overt evidence of active inflammatory or neoplastic disease was noted.

SEX

Male

ULTRASONOGRAPHIC FINDINGS

Mild microhepatica, suspect portal hypoplasia/microvascular dysplasia.

AGE

6 months

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

WEIGHT

6.4 lbs

There is no evidence of macroscopic shunting. Liver biopsy would be necessary for further definition. There is no overt contraindication to anesthetic procedure; however, I suggest Torbutrol premed, Propofol induction, and Isoflurane maintenance.

INTERPRETED BY

Hepatic Support for Bile Acid Elevation +/- Hepatic Encephalopathy

Eric Lindquist, DMV
DABVP, Cert. IVUSS

Royal Canin Hepatic Support diet or Hills L/D, Metronidazole (7.5 mg/kg PO bid) over the next 14 days, Lactulose (Oral: 3.1-3.7 g/5 ml lactulose in a syrup base) long term to target 2-3 soft stools/day, with a high-quality protein supplement of minor amount of yogurt or cheddar cheese. Monitor bile acids, with attention paid to dropping albumin, BUN or cholesterol. SAME and nutraceuticals as needed. Ursodiol (10-15 mg/kg p.o. q24h) can be considered as hepatoprotectant and to enhance bile flow. Zinc serum level keep between 200–500 ug/dl. If deficient then Tx zinc acetate 1-3 mg/kg/day. Gastrointestinal protectants are recommended if the patient is anorexic.

IMAGING PERFORMED BY

Dr. Reyes

HOSPITAL NAME

Mobile Vet Ultrasound

REFERRING VET

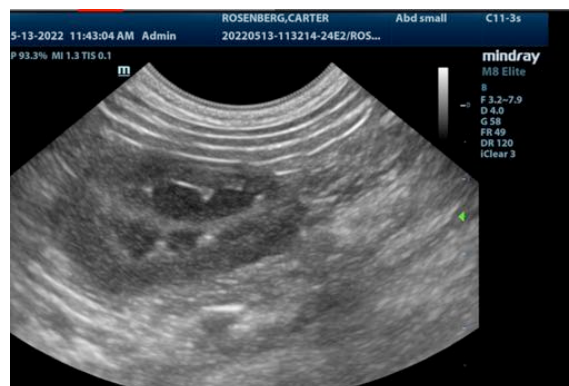
Dr. Santiago

INVOICE

30388

DATE

5/13/22





PATIENT

Carter Rosenberg

SPECIES

Canine

BREED

Maltese

SEX

Male

AGE

6 months

WEIGHT

6.4 lbs

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Reyes

HOSPITAL NAME

Mobile Vet Ultrasound

REFERRING VET

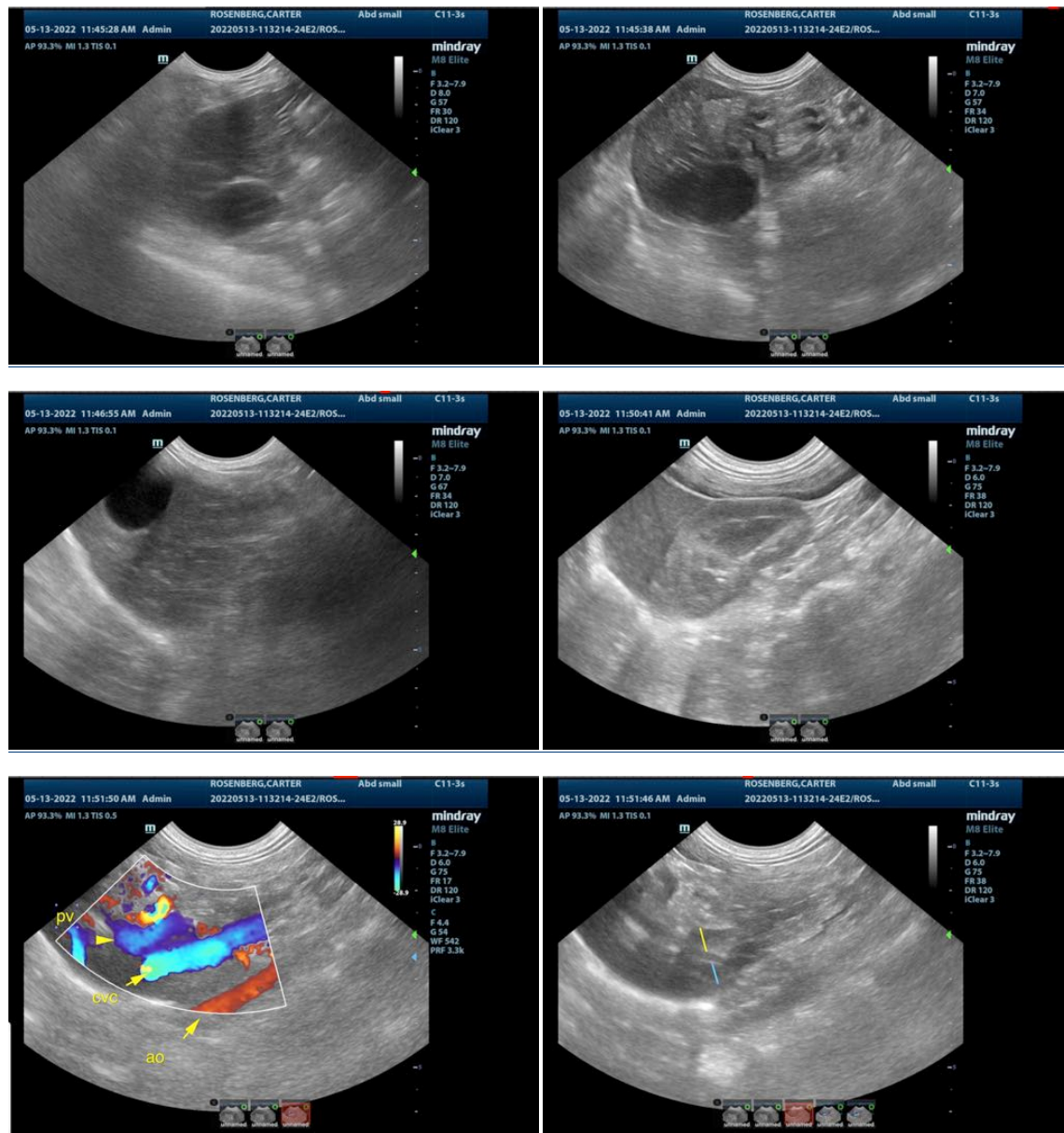
Dr. Santiago

INVOICE

30388

DATE

5/13/22



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.



PATIENT

Eric Lindquist, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com
info@SonoPath.com

Carter Rosenberg

SPECIES

Canine

BREED

Maltese

SEX

Male

AGE

6 months

WEIGHT

6.4 lbs

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

**IMAGING
PERFORMED BY**

Dr. Reyes

HOSPITAL NAME

Mobile Vet Ultrasound

REFERRING VET

Dr. Santiago

INVOICE

30388

DATE

5/13/22