



PATIENT

Penny Ward

SPECIES

Canine

BREED

Lab X

SEX

Spayed Female

AGE

9 Years

WEIGHT

40 Pounds

INTERPRETED BY

Eric Lindquist, DMV

DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Diane McFadden

HOSPITAL NAME

AH of Sussex County

REFERRING VET

Dr. Ackernecht

INVOICE

36769

DATE

4/6/22

PRESENTING CLINICAL SIGNS

chronic diarrhea/vomiting; has been treated as gastroenteritis with no improvement. not currently on any meds

Abnormal PE/Chem/CBC/UA Results: Texas GI panel wnl; retics 136 (H), ALKP 1074 (H); ALT 193 (H), AST 101 (H); CK 271 (H), CI 104 (L). UA not performed

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 were 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 right kidney measured 5.57 cm. The left kidney measured 5.21 cm. Cortical infarct noted at the dorsal cortex of the left kidney.

Adrenal Glands

The **left adrenal gland** was slightly enlarged at the cranial pole, measuring 0.92 cm. Caudal pole measured 0.58 cm. Length measured 2.57 cm. The right adrenal gland measured 1.93 cm x 1.47 cm at the cranial pole and 0.68 cm at the caudal pole.

Spleen

The **spleen** presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The spleen was folded upon itself cranially. 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 were noted.

Liver

The **liver** revealed heterogeneous parenchymal changes with iso- to hypoechoic nodular changes and cysts with an overt left-sided 6.2 cm x 4.3 cm expansive parenchymal mass. The hepatic pathology is multifocal to diffuse and not resectable.

Gastrointestinal

The **gastrointestinal** presentation revealed mild uniform prominence of the gastric mucosa as well as areas of "ropey" small intestinal wall with slight disruption of the normal 1:3 muscularis/mucosal ratio. The intestinal submucosa was slightly irregular, thickened and hyperechoic suggestive of low grade, chronic disease. No concerning lymphadenopathy was visible. No evidence of obstruction was present. Soft stool/fluid filled colon noted. Chronic inflammatory bowel disease is likely with a low possibility of an early neoplastic event such as lymphoma. Full thickness tissue biopsies via open laparotomy, ideally guided by intraoperative ultrasound in order to obtain the most representative mural sample, would be necessary to rule out this possibility.



PATIENT

Pancreas

Penny Ward

The **pancreas** was heterogeneous and irregular at the base.

SPECIES

Canine

BREED

Lab X

SEX

Spayed Female

AGE

9 Years

WEIGHT

40 Pounds

ULTRASONOGRAPHIC FINDINGS

- Hepatic masses and nodular changes – hepatic neoplasia versus remodeling and cirrhosis less likely.
- Diffuse intestinal thickening with hypertrophied muscularis – consistent with inflammatory bowel or emerging round cell neoplasia.
- Low-grade chronic active pancreatitis
- Age related renal changes with left renal infarct
- Enlarged left adrenal gland – likely hyperplasia, mild potential for emerging carcinoma, adenoma or pheochromocytoma.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

FNA of the various hepatic parenchymal presentations recommended. Bile acid profile warranted. Even though the hepatic changes are significant, they may be low-grade. Carcinoma versus cirrhosis are primary concerns. FNA of the liver or core surgical biopsies with GI biopsies would be idea. Prognosis is guarded.

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Diane McFadden

HOSPITAL NAME

AH of Sussex County

REFERRING VET

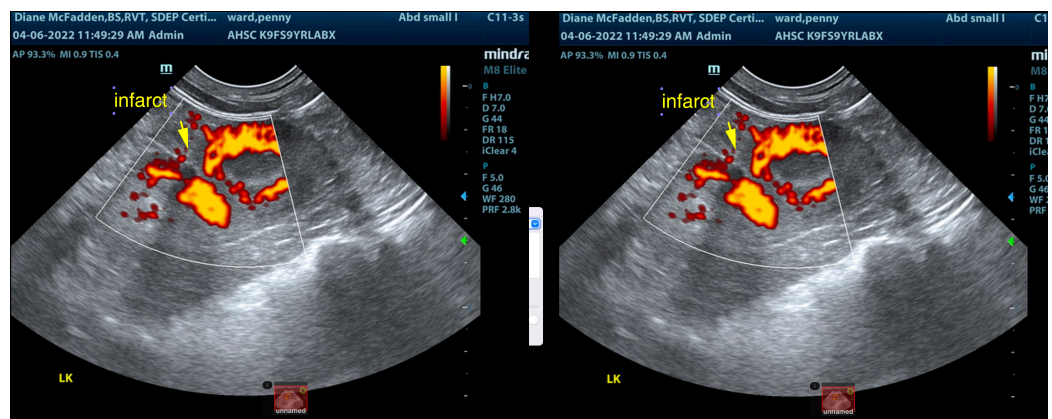
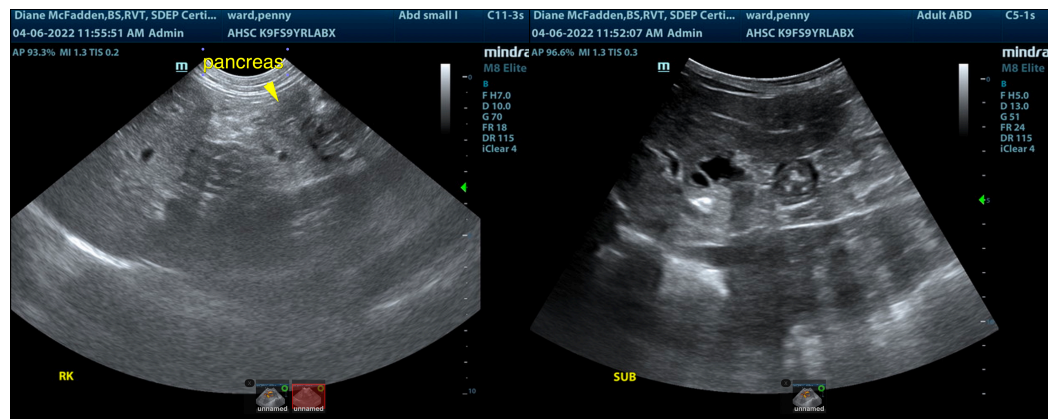
Dr. Ackernecht

INVOICE

36769

DATE

4/6/22





PATIENT

Penny Ward

SPECIES

Canine

BREED

Lab X

SEX

Spayed Female

AGE

9 Years

WEIGHT

40 Pounds

INTERPRETED BY

Eric Lindquist, DMV

DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Diane McFadden

HOSPITAL NAME

AH of Sussex County

REFERRING VET

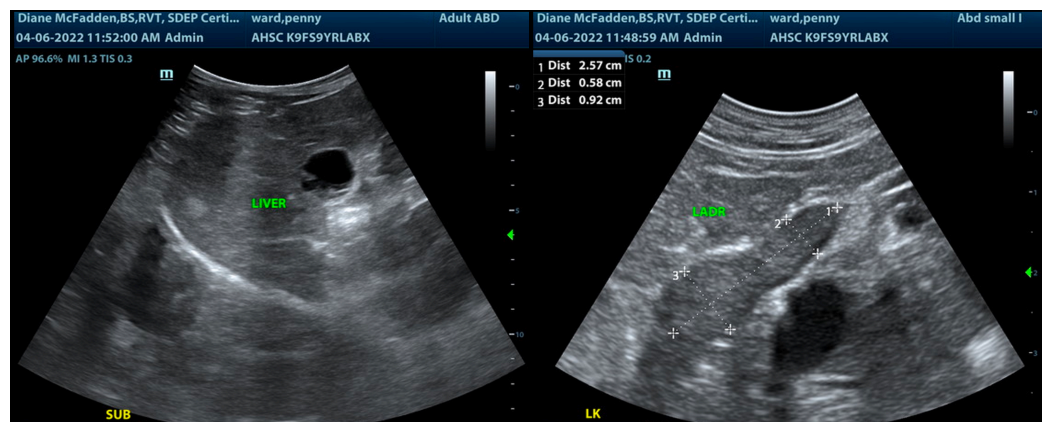
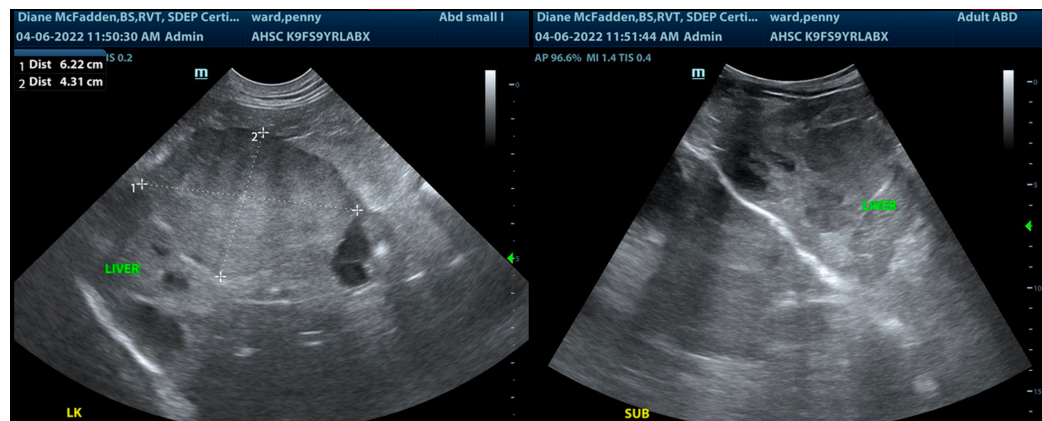
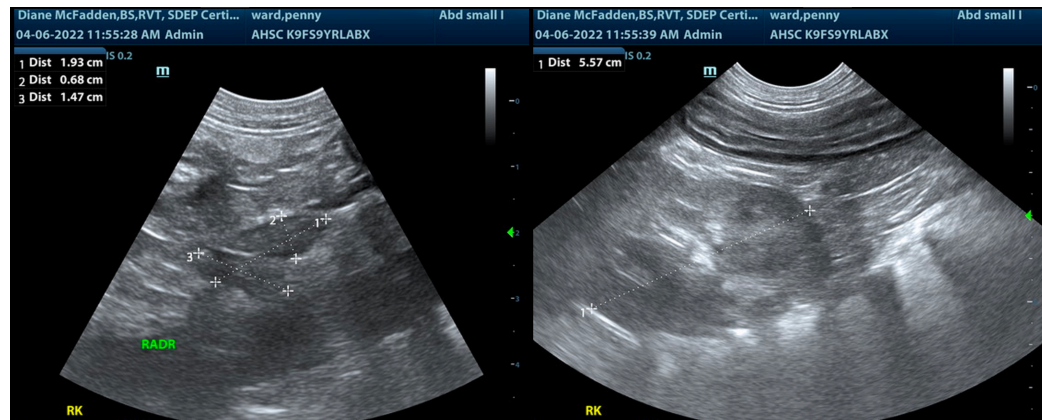
Dr. Ackernecht

INVOICE

36769

DATE

4/6/22



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.

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

info@SonoPath.com