

**DATE**

11/25/22

PATIENT

Lacy Kuhn

SPECIES

Canine

BREED

Miniature Poodle

SEX

Spayed female

AGE

7/24/08

WEIGHT

15.8 lbs

INTERPRETED BYEric Lindquist, DMV
DABVP, Cert. IVUSS**HOSPITAL NAME**Animal Emergency
Hospital**REFERRING VET**

Dr. Saubier

INVOICE

42718

PRESENTING CLINICAL SIGNS

Extensive history; See in clinic notes for Lancaster Speciality report Surgery Nov 2021 Mass removed from Liver, Gall bladder removed, urinary bladder tacked. Histopathology - hepatocellular carcinoma. May recheck US - liver mass has returned Referral for vomiting / diarrhea. Newly elevated pancreatic enzymes. Owner would like abdominal US Medications: Cytopoint shot 1x/mo, Dermaquin supplement, Metronidazole 250 mg/tab 1/2 tab every 12 hours (began this morning), Nexguard chewables, Heartguard, VETRI SAME 225 1 tab 1x/day, Proviabie 1 capsule daily, Diclofenac Sodium Ophthalmic Solution 0.1% 1 drop in each eye daily, Phenylpropanolamine HCl 10 mg/cap 1 cap 3x/day, Ursodiol 250mg tabs 1/2 tab daily, & Zyrtec.

Current Medications: amoxicillin, metronidazole, proviable, maropitant, omeprazole, gabapentin see above notes in history

Lab Results: See attached.

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

Imaging Performed By: Rachel Brillhart, RDMS.

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 left kidney was severely dystrophic and subnormal in size measuring 1.72 cm with pyelectasia that measured 0.22 cm. The right kidney revealed moderate degenerative changes with a cortical cyst, remodeling and loss of corticomedullary definition and minor pyelectasia that measured 0.44 cm. The right kidney measured 5.38 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 right adrenal gland measured 2.08 x 0.78 cm at the caudal pole and 0.75 cm at the cranial pole. The left adrenal gland measured 2.39 x 0.69 cm at the caudal pole and 0.76 cm at the cranial pole.

Spleen

The **spleen** presented discrete and diffuse hypoechoic micronodular parenchyma. The capsule was generally smooth without noticeable impingement from within the spleen or from pathology in the adjacent abdomen. The splenic vasculature demonstrated normal volume without signs of congestion or significant contraction. These changes are consistent with age related benign nodular hyperplasia. However, early hemangiosarcoma, lymphoma or mast cell neoplasia could not be entirely ruled out. Fine needle aspirate or biopsy following coagulation panel would be ideal especially if any weight loss is an issue. Otherwise, follow up ultrasound in 3-4 weeks to track these changes would be a more conservative approach.

Liver

The **liver** revealed mild coarse architecture with slightly increased portal markings. The left liver revealed a recurrent mass that measured 5.37 cm. The mass was expansive, irregular, nodular and cystic. The mass deviated and is possibly adhered to the diaphragm. Some biliary mineralization was noted in the liver. The gallbladder was not visualized as it was previously removed.

Gastrointestinal

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.

Pancreas

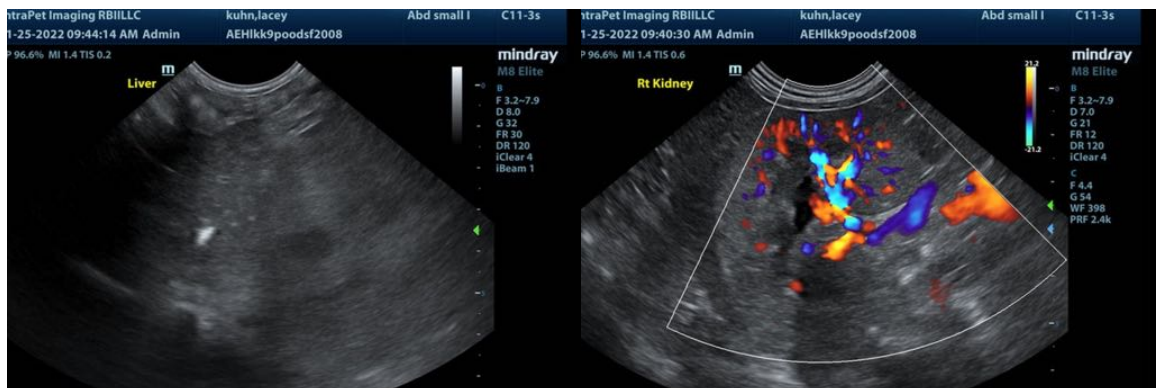
The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Some parenchymal remodeling, however, with mild deviation from curvilinear normalcy was observed. Pancreatic duct and capsular irregularities were present consistent with age related changes. If pain upon imaging (+ Murphy sign) was present or if the patient is focally painful in subxiphoid palpation then low-grade smoldering chronic pancreatitis should be suspected.

ULTRASONOGRAPHIC FINDINGS

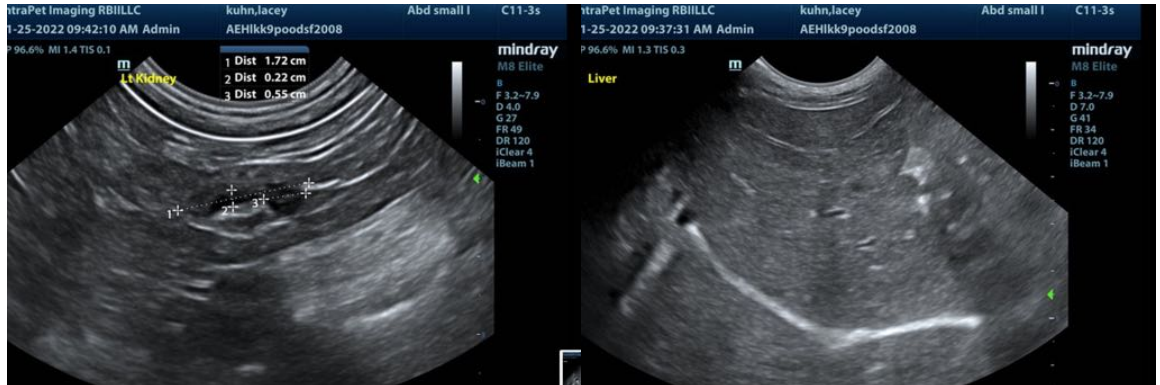
Severely dystrophic left kidney.
Moderate degenerative changes in the right kidney with pyelectasia.
Recurrent hepatic mass.
Pancreatic remodeling.
Mineralized spleen and adrenal enlargement.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The hepatic mass appeared to be occupying the majority of the left liver. This is potentially still resectable, yet it impinges upon the diaphragm. Adherence to the diaphragm is a concern; however, given the renal failure the kidneys appear essentially end stage and moderate to near end stage on the right. Potential for concurrent pituitary dependent hyperadrenocorticism. The prognosis is guarded to poor. 72-hour IV fluid protocol, blood pressure measurements and full urinalysis is indicated to correct the azotemia. Surgical consultation is recommended regarding the current left liver mass. This is most consistent with carcinoma; however, the utility of surgical intervention is debatable given the renal failure.







The information and recommendations provided are based on the images presented by the referring veterinarian. 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.

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