



**PATIENT**

Mia Hoeflinger

**PRESENTING CLINICAL SIGNS**

V/D, diagnosed with splenic mass and possible adrenal mass 1/2021. Recheck.

**SPECIES**

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The **urinary bladder** and visible pelvic urethra were unremarkable for the level of repletion presented. The urine, however, did present some mildly echogenic debris consistent with mucous, exfoliated cells from renal or bladder origin, and/or blood clots as these echogenic changes can all present similarly. This is often related to urinary tract infection but may represent simple evidence of exfoliated debris or sterile inflammation. Cystocentesis, urinalysis, +/- culture would be recommended to rule out and define any UTI. The pelvic urethra was imaged 2.0 cm beyond the cystourethral junction.

**BREED**

Pomeranian X

**SEX**

Spayed Female

The **left kidney** presented moderate degenerative changes and loss of corticomedullary definition. Echogenic remodeling noted. The left kidney measured 4.5 cm with pyelectasia of 1.48 cm.

**AGE**

7 Years

The **right kidney** presented moderate degenerative changes and measured 4.8 cm.

**Adrenal Glands**

The **left adrenal gland** comprised an invasive mass measuring 5.0 cm x 2.12 cm with phrenic vein invasion to the level of the vena cava. Minor protrusion into the vena cava noted at 5.0 mm. The mass is significantly vascular. This is strongly suggestive of pheochromocytoma or adenocarcinoma.

**WEIGHT**

14.6 Pounds

The **right adrenal gland** was enlarged, nodular and irregular without capsular escape or vascular invasion, measuring 2.3 cm x 1.28 cm.

**INTERPRETED BY**

Eric Lindquist, DMV

DABVP, Cert. IVUSS

**Spleen**

The **spleen** revealed a 4.0 cm mixed echogenic mass deriving from the mid cranial body with other heterogeneous changes noted.

**IMAGING PERFORMED BY**

Eric Lindquist, DMV

DABVP, Cert. IVUSS

**Liver**

The **liver** images from right and left intercostal as well as subcostal views revealed subjectively normal liver size, contour, and structure. Some age-related parenchymal remodeling was noted but likely not clinically significant at this time. Vascular and biliary tracts were of normal volume and no evidence of congestion was noted. The **gallbladder** was mildly over distended with suspended and dependent debris, yet not to the level of emerging mucocele, yet sludge appears to be mildly excessive. No adjunctive inflammation was noted.

**HOSPITAL NAME**

Rockaway AH

**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.

**REFERRING VET**

Dr. Maniar

**Pancreas**

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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.

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5/6/22



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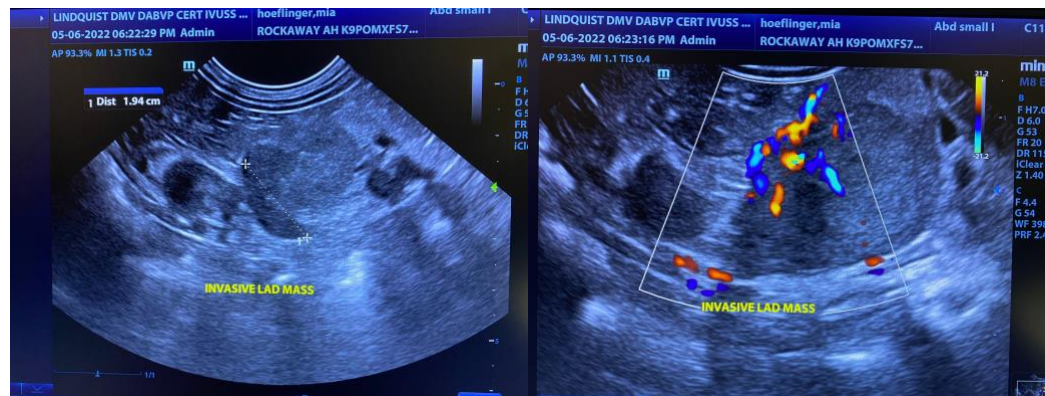
5/6/22

**ULTRASONOGRAPHIC FINDINGS**

- Invasive left adrenal mass – pheochromocytoma versus carcinoma.
- Nodular right adrenal – adenoma likely versus possible pheochromocytoma or adenocarcinoma.
- Splenic mass – may be metastatic from the left adrenal or a primary mass such as hemangiosarcoma.
- Sludgy gallbladder
- Moderate degenerative renal changes with pyelectasia on the left

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

3-view chest radiographs, blood pressure and adrenal workup all indicated. Surgical consult for left adrenalectomy and splenectomy should be considered in this patient with manual expression of the gallbladder. Urine catecholamine would be ideal if the patient does not appear Cushingoid, as pheochromocytoma is a strong potential.





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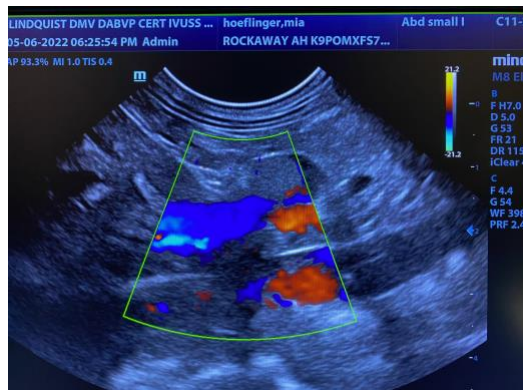
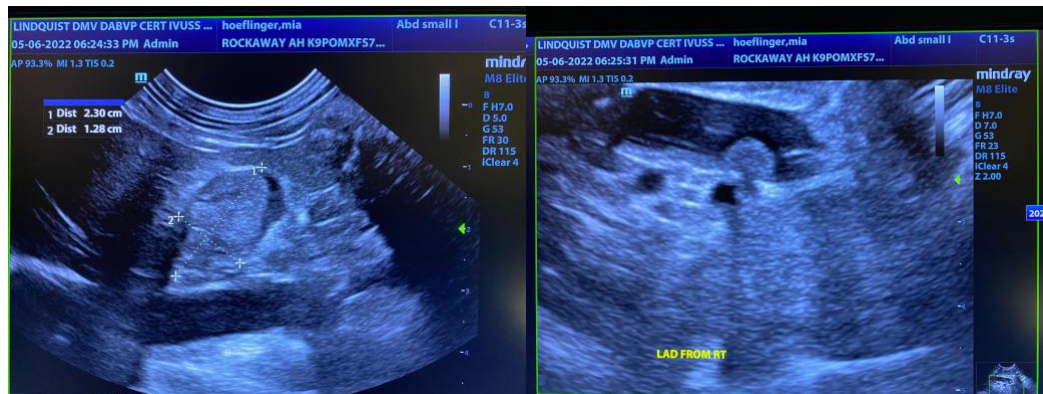
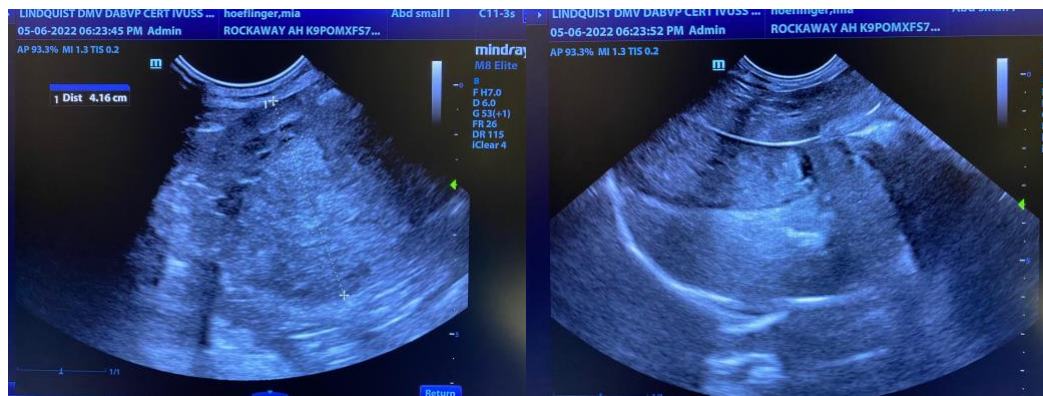
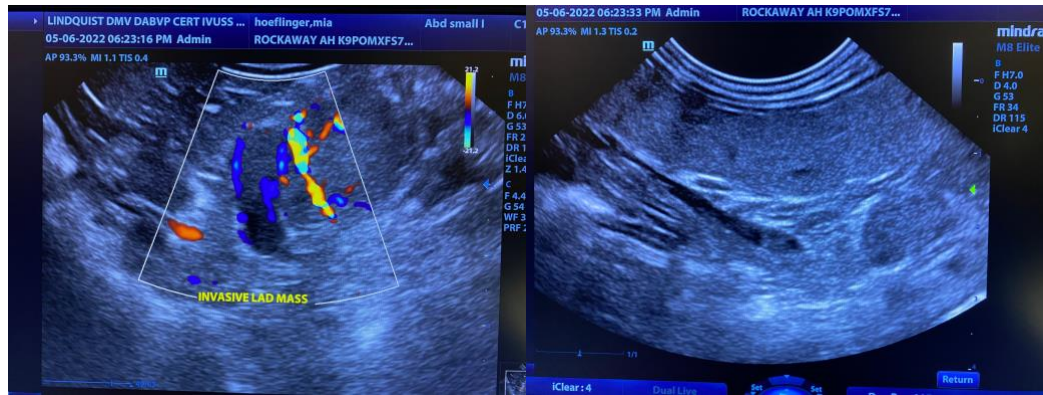
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

**SPECIES**

Canine

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**

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