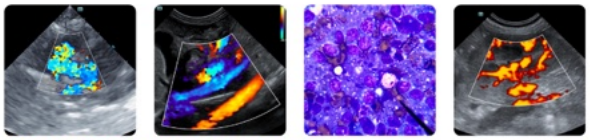




**PATIENT**

Penny Lentini

**SPECIES**

Canine

**BREED**

Shih Tzu

**SEX**

Spayed female

**AGE**

14 years

**WEIGHT**

13.2 lbs

**INTERPRETED BY**

Alicia Angosto Guerrero, DMV, PgDip, MSc.

**IMAGING PERFORMED BY**

Dr. Arms

**HOSPITAL NAME**

Gilbertsville VH

**REFERRING VET**

Dr. Reist

**INVOICE**

74385

**DATE**

4/9/26

## PRESENTING CLINICAL SIGNS

History: acute onset weight loss, mild decreased appetite but still eats at least one meal per day. PU/PD, inappropriate urination - sometimes small amounts, sometimes large amounts.
ALKP 315, creat 0.3, Na 138, chol 354, T4 1.0, UA - USG 1.019, cortisol resting 3.6, urine cortisol/creatine 30 Blood pressure normal today considering CXR +/- AXR considering LDDS or ACTH stim

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### *Urinary System*

The urinary bladder is underdistended. The wall appears thickened and irregular, with a polypoid proliferative lesion extending into the lumen at the mid-cranial aspect of the dorsal wall. The urine is anechoic. The bladder neck and proximal urethra appear normal. No uroliths are identified.

The left kidney is normal in shape and size (3.81×2.41 cm), with a cortical thickness of 0.33 cm in the sagittal plane. The cortex is isoechoic compared to the liver parenchyma. The corticomedullary ratio is within normal limits, and corticomedullary definition is preserved. There is pyelectasia measuring up to 5.26 mm. Mild dilation of the proximal ureter is noted, extending cranially toward the region of the left adrenal gland.

The right kidney is normal in shape and size (3.60×2.12 cm), with a cortical thickness of 0.36 cm in the sagittal plane. The cortex is isoechoic compared to the liver parenchyma. The corticomedullary ratio is within normal limits, and corticomedullary definition is preserved. No pyelectasia or hydronephrosis is identified.

### *Adrenal Glands*

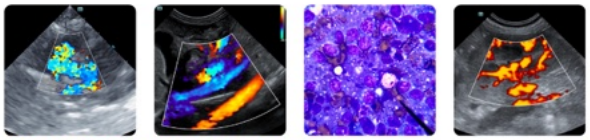
The left adrenal gland is replaced by a large, heterogeneous, infiltrative mass containing mineralized foci, measuring approximately 3.15 cm in length and 1.67×1.54 cm in thickness. The normal adrenal architecture is not preserved. The right adrenal gland measures 0.67 cm at the cranial pole and 0.98 cm at the caudal pole. Although the caudal pole appears mildly hypoechoic and heterogeneous, the gland retains its bilobed shape.

### *Spleen*

The spleen measures 1.23 cm in thickness, with mildly irregular margins and a decreased, mildly heterogeneous, coarse echotexture.

### *Liver*

The liver is subjectively normal in size, with sharp margins and a regular contour. The parenchyma is homogeneous and isoechoic relative to the falciform fat. Within the lumen of the caudal vena cava, a large heterogeneous, partially mineralized structure measuring approximately 5.45×2.53 cm is





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identified. Color Doppler evaluation would be useful to further characterize vascular flow and confirm the intravascular nature of this lesion.

The gallbladder is moderately distended. The wall is thin, and the lumen contains a moderate amount of biliary sludge. No dilation of the cystic duct or common bile duct is identified.

### *Gastrointestinal*

The stomach is empty and folded, with a wall thickness of 1.92 mm and preserved layering. The pylorus measures 4.99 mm. The duodenum measures 2.13–2.81 mm and is mildly fluid-filled. The jejunum measures 2.27 mm with preserved wall layering. No ultrasonographic evidence of obstruction or foreign material is identified. The colon measures 0.75 mm and contains formed feces in the descending segment.

### *Pancreas*

The evaluated pancreatic areas do not show evidence of overt inflammation or neoplastic disease.

### *Free Abdomen*

No abdominal effusion or peritonitis is identified. There is questionable enlargement of the aortic (lumbar) lymph nodes. The iliac trifurcation appears unremarkable.

## PRIMARY FINDINGS

- Large infiltrative left adrenal mass
- Intraluminal mass within the caudal vena cava

## SECONDARY FINDINGS

- Irregular polypoid bladder wall lesión.
- Left-sided pyelectasia with mild proximal ureteral dilation.
- Mild splenic heterogeneity.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

This study demonstrates a large, infiltrative left adrenal mass with suspected vascular invasion, as evidenced by the presence of a substantial intraluminal mass within the caudal vena cava. These findings are highly concerning for adrenal neoplasia with vascular extension, such as adrenocortical carcinoma or, less likely, a pheochromocytoma, both of which are known to invade the caudal vena cava. In this case, the clinical presentation (including polyuria/polydipsia) and laboratory abnormalities (elevated alkaline phosphatase and hypercholesterolemia) may be more supportive of a hormonally active adrenocortical tumor (cortisol-secreting), whereas the absence of documented systemic

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hypertension makes pheochromocytoma less likely. However, ultrasonography cannot reliably differentiate between these entities, and definitive characterization requires further diagnostic testing.

The associated left-sided pyelectasia and proximal ureteral dilation suggest secondary ureteral obstruction or compression, likely related to the adrenal mass.

An irregular proliferative lesion of the urinary bladder wall is also noted, raising concern for polypoid cystitis.

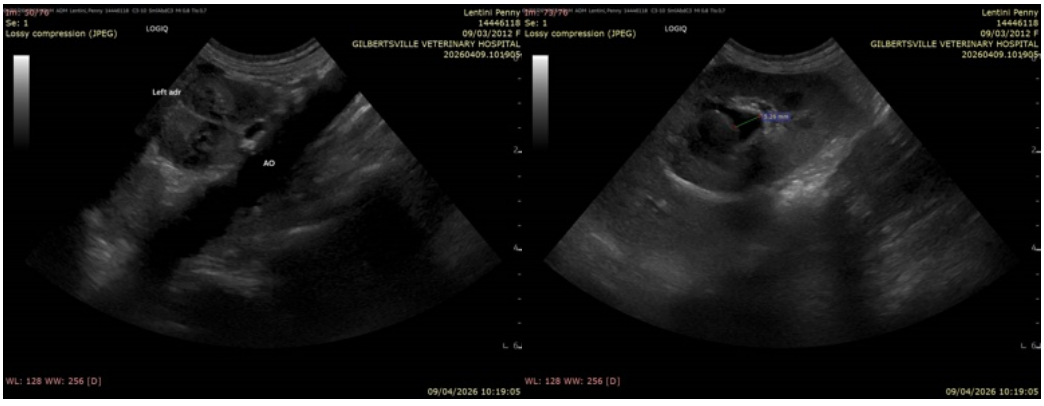
The splenic changes and possible aortic lymph node enlargement are nonspecific but may represent reactive changes or potential metastatic involvement.

Overall, these findings are most consistent with advanced neoplastic disease, with the adrenal mass representing the primary lesion and vascular invasion indicating aggressive biological behavior.

Recommendations

- Further characterization of the adrenal mass and suspected vascular involvement is strongly recommended, ideally with advanced imaging (CT), as this would also allow assessment for potential metastatic disease not detectable on ultrasound and is critical for accurate staging and treatment planning. However, color Doppler ultrasound may offer additional, more rapid assessment of vascular invasion.
- Cytologic or histopathologic sampling of accessible lesions may be considered if clinically appropriate.

Final diagnostic and therapeutic decisions should be made by the attending veterinarian, who can best integrate these findings with the patient's clinical status.



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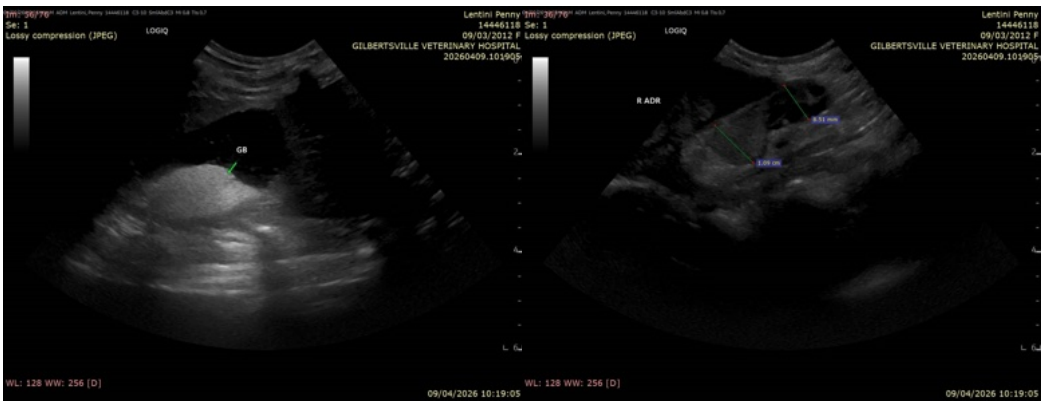


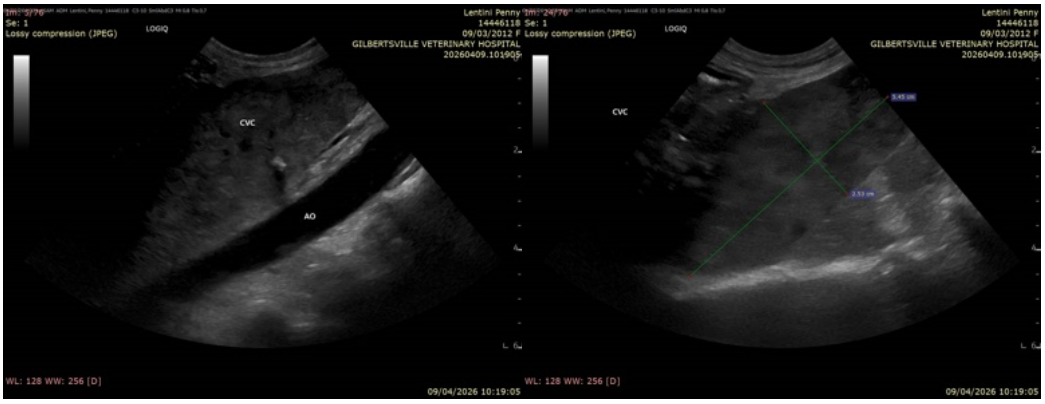


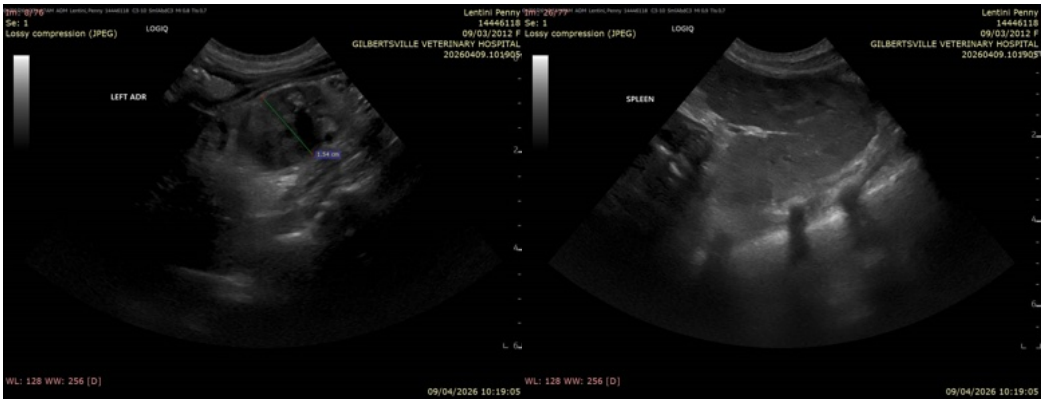

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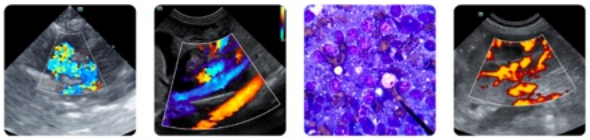

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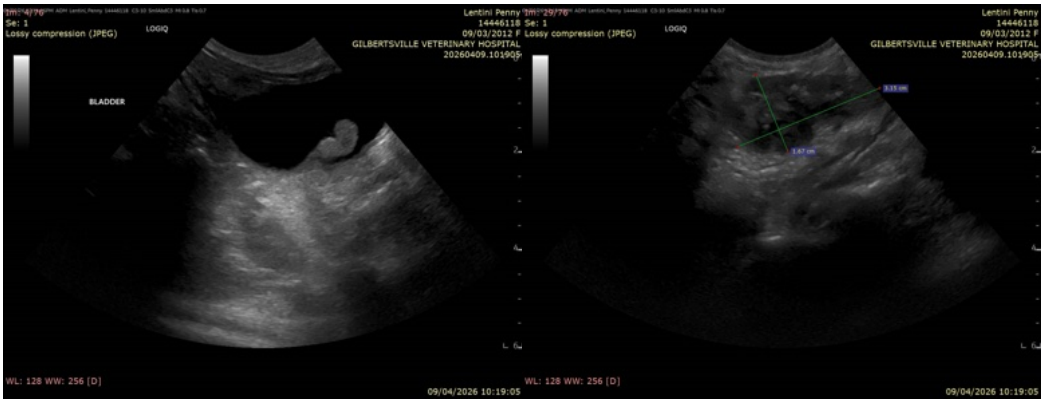


**The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.**

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.

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