



**PATIENT**

Zoey Ortiz Colon

**SPECIES**

Canine

**BREED**

Shih Tzu

**SEX**

Female

**AGE**

10 Years

**WEIGHT**

15.2 Pounds

**INTERPRETED BY**

Eric Lindquist, DMV

DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Dr. Ferrer

**HOSPITAL NAME**

Paseos Vet Center

**REFERRING VET**

Dr. Michelle Kiello

**INVOICE**

44463

**DATE**

8/3/23

**PRESENTING CLINICAL SIGNS**

The patient presented for preventive care but owners noted vulvar bleeding for various days around 1 wk ago. The owner believed it was associated with her heat cycle but the patient does not tend to bleed. The owner has noted the patient with some difficulty/straining with bowel movements. Upon evaluation a firm structure, mass- like was noted on the caudal abdomen. US recommend to rule out bladder mass, pyometra or uterine mass.

Abnormal PE/Chem/CBC/UA Results: CBC: Eosinophils 1.61 0.06 - 1.23 K/ $\mu$ L Platelets 670 148 - 484 K/ $\mu$ L CHEM: WNL

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The **urinary bladder** was deviated ventrally owing to the pelvic mass. Minor amount of bladder debris noted. Excessive wall thickness noted.

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. The capsules were acceptably uniform without significant irregularities. The right kidney measured 4.95 cm. The left kidney measured 4.39 cm with slight pyelectasia noted.

**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 1.86 cm x 0.57 cm. The left adrenal gland measured 1.6 cm x 0.53 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 were noted.

**Liver**

The **liver** images submitted revealed subjectively normal liver size, contour, and structure. Parenchymal echogenicity was naturally coarse and hypoechoic to the spleen. Vascular and biliary tracts were of normal volume with no evidence of congestion. 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.

**Gastrointestinal**

The **stomach** was unremarkable. A mucosal polyp was noted in the upper duodenum measuring 1.0 cm x 1.5 cm.



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**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.

**SPECIES**

Canine

**Free Abdomen**

**BREED**

Shih Tzu

Slight free fluid noted adjacent to the spleen. The free fluid is echogenic, suggestive for inflammatory and neoplastic content.

**SEX**

Female

The uterus was mildly thickened at 1.46 cm. A mixed hypoechoic undifferentiated 5.5 cm mass was noted in the mid abdomen and appeared to derive from the uterine base. The left ovary revealed complex micro- and macrocystic changes, measuring 3.0 cm x 1.5 cm.

**AGE**

10 Years

Reactive mesenteric lymph nodes noted, example measured 1.34 cm x 0.50 cm.

**WEIGHT**

15.2 Pounds

**ULTRASONOGRAPHIC FINDINGS**

- Mass at the uterine base and mild uterine thickening cranial to the mass with slight luminal fluid
- Micro- and macrocystic changes of the left ovary
- Chronic cystitis bladder pattern
- Free fluid in the caudal abdomen adjacent to the spleen
- Mucosal polyp in upper duodenum
- Reactive mesenteric lymph nodes

**INTERPRETED BY**

Eric Lindquist, DMV

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Abdominocentesis with cytospin of the localized free fluid adjacent to the spleen would be indicated, as well as FNA of the uterine mass. CT evaluation for surgical planning indicated. I'm not sure if complete ovariohysterectomy would allow for resolution in this patient. Differentials include leiomyosarcoma, other sarcoma, or less likely hyperplasia. Direct exploratory could be considered with ovariohysterectomy. However, the mass appears to impinge upon the cervix, and therefore closure may be difficult. The cause of free fluid is unclear, possibly related to ovarian cyst rupture.

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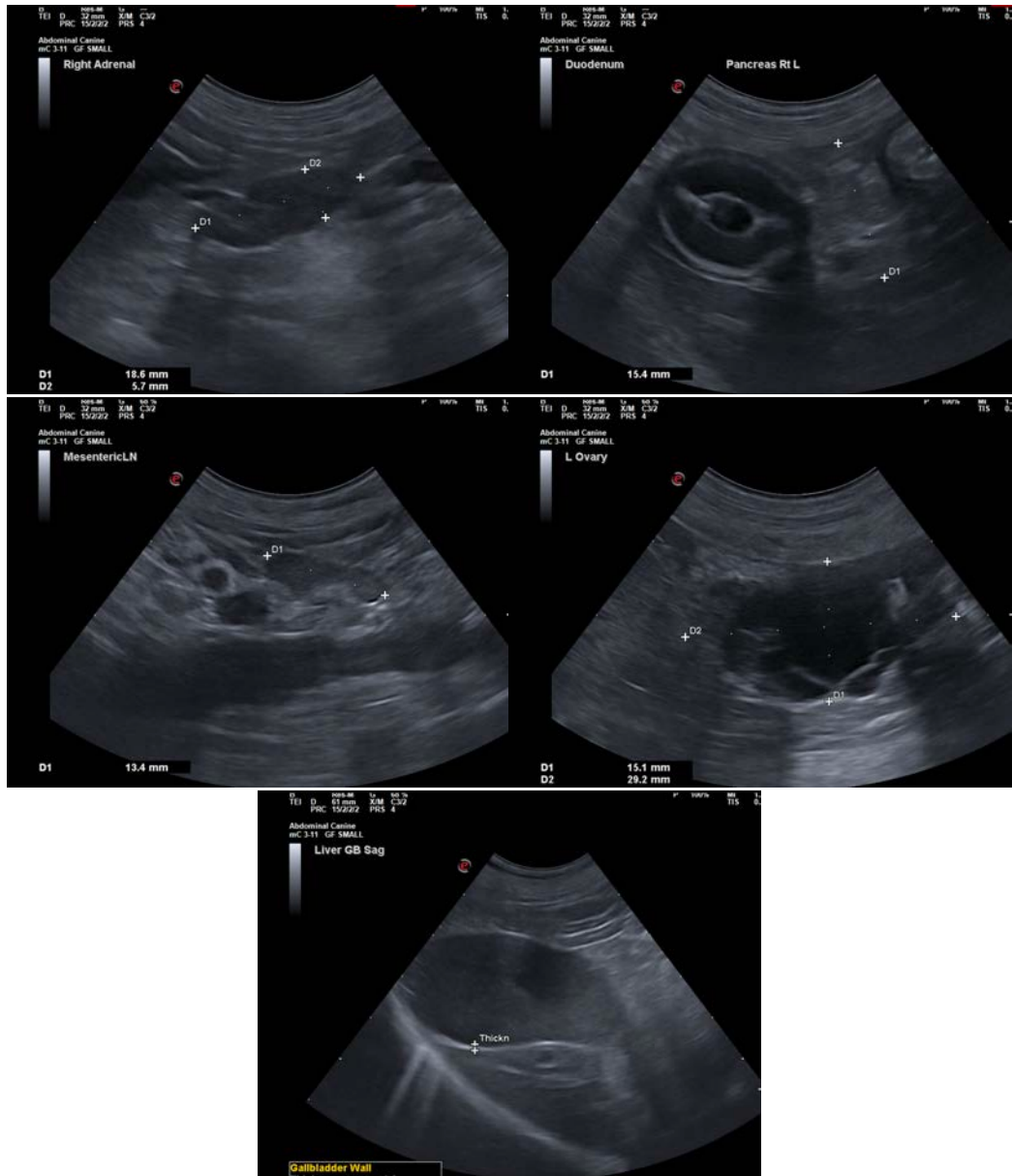
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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

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