



**PATIENT PRESENTING CLINICAL SIGNS**

Flower Brindisi History: Patient noted to be PU/PD past couple weeks, Abnormal PE/Chem/CBC/UA Results: Few larger SQ fatty masses trunk, ALKP 714 U/L was 391 U/L in July ALT 328 U/L, rest BW NSF USG 1.009, rest NSF T4 2.3 ug/dL

**SPECIES**

Canine

**BREED**

Mixed

**SEX**

Spayed Female

**AGE**

11 Years

**WEIGHT**

63 Lbs.

**INTERPRETED BY**

Andrea Nicastro, DMV,  
Diplomate DACVIM  
(Small Animal  
Internal Medicine)

**IMAGING PERFORMED BY**

John Ammeraal, DVM

**HOSPITAL NAME**

Sova

**REFERRING VET**

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**INVOICE**

10049

**DATE**

12/16/21

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder, trigone, and pelvic urethra are normal in thickness and the mucosal surface is smooth. The bladder lumen is moderately distended with anechoic urine. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 2 cm, are normal.

The left kidney presented normal size (7.13 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with normal corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

The right kidney presented normal size (7.28 cm in length); normal shape and architecture with smooth peripheral margins. A 0.98 cm cortical cyst is observed at the cranial pole. There is a normal 1:3 cortex to medulla ratio with normal corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

**Adrenal Glands**

The left adrenal gland is upper limits of normal in size (0.66 cm at cranial pole) (0.82 cm at caudal pole) (2.77 cm in length); with a normal shape and smooth peripheral contours. A 0.41 x 0.30 cm hyperechoic nodule is observed at the caudal pole. Glandular echogenicity and detail are otherwise normal. The phrenicoabdominal vein and surrounding vasculature are normal.

The right adrenal gland is normal size (0.79 cm at cranial pole) (0.76 cm at caudal pole) (2.89 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

**Spleen**

The spleen is normal in size with a normal capsular contour. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature is normal.

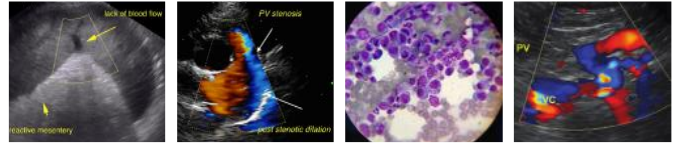
**Liver**

The liver is subjectively normal in size with normal contours and structure. There is appropriate echogenicity and echotexture. No overt structural evidence of inflammatory, infiltrative or regenerative pathology is evident. Vascular and biliary tracts are of normal volume with no evidence of congestion. No pathological hepatic lymphadenopathy observed.

The gall bladder is of normal contours and contains some dependent echogenic debris. The wall is normal in thickness. No choleliths are observed. The cystic and common bile ducts are normal/not seen.

**Gastrointestinal**

The gastric lumen is not distended. The gastric wall is normal in thickness with a normal layering pattern. The small intestinal lumen is not dilated. The small intestinal wall thickness is normal with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. No obstructive or overt infiltrative disease is noted.



**PATIENT**

**Pancreas**

Flower Brindisi

The region of the pancreas is isoechoic relative to surrounding omental fat. No obvious parenchymal abnormalities are observed. There is no evidence of regional inflammation or effusion.

**SPECIES**

**Free Abdomen**

Canine

The peritoneal cavity is normal. There is no evidence of inflammation or effusion. The abdominal lymph nodes are normal/not visible.

**ULTRASONOGRAPHIC FINDINGS**

**BREED**

**Primary Findings**

Mixed

- Small left adrenal nodule. A benign process (i.e., hyperplastic nodule) is favored, with a lower possibility of emerging neoplasia.

**SEX**

Spayed Female

\*An obvious cause for the patient's elevated ALP is not identified in this study. However, a benign process (i.e., regenerative nodular hyperplasia), age-related remodeling or vacuolar hepatopathy is likely.

**AGE**

11 Years

\*An obvious cause for the patient's PUPD is not identified in this study.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

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- To further evaluate for causes of PUPD, consider the following:
  1. Urine culture and sensitivity
  2. Pre- and post-prandial serum bile acids to assess for occult hepatic dysfunction
  3. Cushings testing (i.e., low-dose dexamethasone suppression test or ACTH stimulation test).
  4. Leptospirosis testing (i.e., blood-in-urine PCR, serology)
- If the above diagnostics are inconclusive, a more advanced workup may be warranted and could include the following:
  1. DDAVP trial to assess for central diabetes insipidus
  2. Modified water-deprivation test to assess for psychogenic polydipsia and nephrogenic diabetes insipidus
- Regarding the elevated ALP, serial monitoring, (i.e., every 3-4 months) is recommended to assess for progression. If values continue to increase, a repeat abdominal ultrasound +/- hepatic tissue sampling may be warranted.
- Given the patient's age, three-view thoracic radiographs are recommended to assess cardiopulmonary status.

**INTERPRETED BY**

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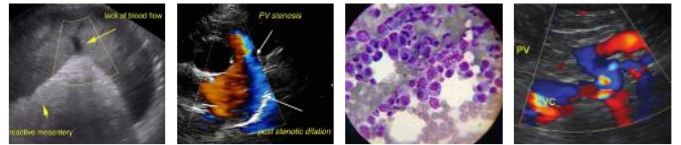
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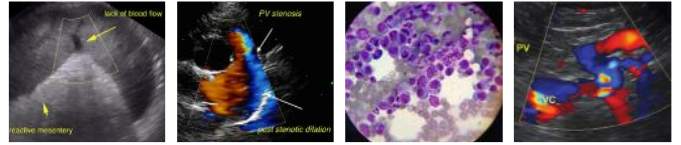
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.



**PATIENT**

**Andrea Nicastro, DVM, Diplomate DACVIM (Small Animal Internal Medicine)**  
info@SonoPath.com

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