



**PATIENT PRESENTING CLINICAL SIGNS**

Tina Milne  
**SPECIES**  
 Canine  
**BREED**  
 Dachshund

History: Loosing weight (down 2 kg), Straining diarrhea, restless  
 Abnormal PE/Chem/CBC/UA Results: Under weight, DMVD grade 4/6 on Pimo, CBC: Lym 0.72 (N 1.05-5.10) Chem: Urea 19.2 (N 2.5-9.6), Phos 2.46 (N 0.81-2.20) Alb 45 (N 22-39) ALT Very high ALKP >8000 (N 23-212) T Bil 18 (N 0-15), Amy 1638 (N 500-1500) T4: 18 (N 13-51), SDMA: 21 (N 0-14) Snap cPL: Abnormal Xrays: 1. Moderate hepatomegaly 2. Suspect gastroenteritis/colitis 3. Nephrolithiasis. 4. Mild cardiomegaly valvular endocardiosis. There is no evidence of heart failure at this time. 5. Hypovolemia. 6. Wispy tendrils of soft tissue ventral to the liver is likely secondary to steatitis/peritonitis as a result of pancreatitis. Small volume abdominal effusion cannot be ruled out but is less likely at this time

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**SEX** *Urinary System*

Female, spayed  
 The urinary bladder and visible portion of the pelvic urethra are normal for the degree of luminal distension. The urine is anechoic with no evidence of debris. Cystic calculi and discrete masses are not observed. The region of the trigone and the visible portion of the proximal urethra are normal.

**AGE**

18 Yrs. 9 months  
 The left kidney is normal size (3.34 cm in length) with a slightly irregular shape. The cortex is variably thickened and there is moderate loss of corticomedullary distinction. Several non-obstructive nephroliths are visualized. Trace pyelectasia is present. There is no evidence of hydroureter. Renal vasculature is normal.

**WEIGHT**

4.3 kg.  
 The right kidney is normal size (4.24 cm in length) with a slightly irregular shape. The cortex is hyperechoic and there is a normal 1:3 cortex to medulla ratio with mild to moderate loss of corticomedullary distinction. A few small cortical cysts are seen. Several non-obstructive nephroliths are visualized. Trace pyelectasia is present. There is no evidence of hydroureter. Renal vasculature is normal.

**INTERPRETED BY**

Andrea Nicastro, DVM,  
 Diplomate ACVIM  
 (Small Animal Internal  
 Medicine)

*Adrenal Glands*

The left adrenal gland is enlarged (0.49 cm at cranial pole) (0.89 cm at caudal pole) with an irregular shape. A 1.68 x 1.00 cm hyperechoic nodule is observed at the mid to caudal aspect. The glandular echogenicity and detail at the cranial aspect are unremarkable. The phrenicoabdominal vein and surrounding vasculature are normal.

**IMAGING PERFORMED BY**

Dr. Brian Barnes

The right adrenal gland is normal size (0.42 cm at cranial pole) (0.52 cm at caudal pole) (1.74 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.

**HOSPITAL NAME**

Westview VH

*Spleen*

**REFERRING VET**

Dr. Brian Barnes

The spleen is normal in size (0.74 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature is normal.

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*Liver*

The liver is enlarged with irregular peripheral contours. A >7.5 cm heterogeneous slightly cavitated mass is arising from the left side and appears to extend somewhat into the right side. The mesentery effacing the serosal surface of the mass is hyperechoic. In the remainder of the liver, the margins are curvilinear and the parenchyma is homogeneous. Vascular and biliary tracts are of normal volume with

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no evidence of congestion. The gall bladder lumen is moderately distended. The wall is thin and smooth. A moderate amount of aggregated echogenic debris/sludge is observed within the lumen, most of which is gravity-dependent and some of which is suspended. The cystic and common bile ducts are normal/not seen.

**SPECIES**

Canine

**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. There is no evidence of an obstructive pattern.

**BREED**

Dachshund

**Pancreas**

A portion of the pancreas is obscured by the large hepatic mass. In the visualized portions, the pancreas is visible with minimal deviation from the normal peripheral contours. The parenchyma is slightly mottled in appearance. No distinct focal lesions are observed. The pancreatic duct is not overtly dilated.

**SEX**

Female, spayed

**Free Abdomen**

There is no obvious evidence of free fluid. The abdominal lymph nodes are normal/not visible.

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18 Yrs. 9 months

**WEIGHT**

4.3 kg.

**ULTRASONOGRAPHIC FINDINGS**

**Primary Findings:**

- Large hepatic mass, predominantly left sided. Neoplasia (i.e., adenocarcinoma, adenoma, round cell tumor) is suspected with a low possibility of a benign process. Adjacent peritonitis is present.
- The left adrenal nodule could be consistent with a benign process (i.e., nodular hyperplasia) or an emerging tumor (i.e., adenoma, adenocarcinoma, pheochromocytoma).

**Secondary Findings:**

- Bilateral, age-related renal changes with non-obstructive nephrolithiasis and trace pyelectasia.
- Minor age-related pancreatic remodeling.

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

- Three-view thoracic radiographs are recommended to assess for pulmonary metastases.
- Consider a fine needle aspirate of the hepatic mass, if clotting status is appropriate. Care should be taken to avoid cavitated regions. There is some risk for iatrogenic hemorrhage with the procedure. If a more aggressive approach is desired and there is no evidence of pulmonary metastatic disease, consider consultation with a board certified surgeon to discuss hepatic mass removal or debulking. An abdominal CT scan would be useful in pre-surgical planning.
- Regarding the left adrenal nodule, consider the following:
  1. Baseline blood pressure measurement

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2. Further testing for a functional tumor (i.e., low-dose dexamethasone suppression test, urine/blood catecholamine levels)
3. Serial sonographic monitoring (i.e., every 2-3 months) to assess for growth of the nodule.

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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.

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