



**PATIENT**

Cooper Medeiros

**PRESENTING CLINICAL SIGNS**

8yo MN bichon with historical mild elevation in ALT. Presented for acute onset neurologic signs and changes in breathing pattern at home- bile acids markedly elevated on intake (pre prandial= 92, post prandial= 88) and ammonia elevated. History of previous urate stones- patient on allopurinol therapy.

**SPECIES**

Canine

Abnormal PE/Chem/CBC/UA Results: ALT mildly elevated 186 BG mildly low 3.6 BUN mildly low 1.2 albumin mildly low 21 Bile acids: 92 pre prandial, 88 post Ammonia = elevated at 162

**BREED**

Bichon Mix

**COMPUTED TOMOGRAPHIC STUDY OF THE THORAX & ABDOMEN**

Plain and post contrast studies of the thorax and abdomen available for review.

**COMPUTED TOMOGRAPHIC FINDINGS**

**SEX**

Male Neutered

**Abdomen**

The serosal fat presents normal attenuation behavior. There is no evidence of peritoneal effusion or peritonitis.

**AGE**

8 Years

A mild amount of mineral attenuating material is seen in the renal pelvis of both kidneys. There is no evidence of pyelectasia. A 15mm sized cortical renal cyst of the left kidney is seen. The urinary bladder is severely distended with uniformly fluid attenuating material.

**INTERPRETED BY**

Nele Eley, DVM  
Dr. med. Vet. DipECVDI

The adrenal glands are within normal limits for size, shape and organ architecture.

The spleen presents with normal shape, even surface, uniformly attenuating parenchyma and homogeneous contrast enhancement, unremarkable.

The liver is small. The gallbladder is moderately distended with uniformly fluid attenuating content.

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A single extrahepatic portosystemic shunt is seen emerging from the splenic vein coursing dorsally with a tortuous path to feed into the dilated right azygos vein cranial of the diaphragm. Maximum shunt diameter is 1.0 cm. The shunt entrance into the azygos vein appears to be cranial of the diaphragm and a sigmoid shaped tortuous loop is seen in the craniodorsal abdomen immediately caudal of the diaphragm.

**REFERRING VET**

Dr. Westgarth

The pancreas is evenly contoured, the pancreatic parenchyma is homogeneous and presents uniform contrast enhancement.

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The position, delineation, wall and content of the gastrointestinal tract are considered within normal limits throughout.

The bony and surrounding soft tissue structures reveal no abnormalities.

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**Thorax**

The bony and surrounding soft tissue structures are within normal limits.

The sternal, cranial mediastinal and tracheobronchial lymph nodes are small elongated with a



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normal short-to-long-axis-ratio is  $< 0.5$ , the attenuation and contrast enhancement pattern are uniform and considered within normal limits.

The cardiovascular structures including the pulmonary vasculature are within normal limits.

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Canine

The bronchial tree presents with regular branching and tapers uniformly towards the periphery as expected, the bronchial walls are thin and smooth. The bronchus-to-artery ratio is within normal limits.

The lung parenchyma presents the expected architecture and attenuation behavior.

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Bichon Mix

Small incidental gas pockets are seen within the esophageal lumen, there is no evidence of abnormal dilation.

**COMPUTED TOMOGRAPHIC DIAGNOSIS**

**SEX**

Male Neutered

- Single congenital extrahepatic portosystemic shunt of the porto-azygos type.
- Microhepatica.
- Mild bilateral renal sand compatible with ammonium urates.
- Left cortical renal cyst.

**AGE**

8 Years

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The CT study confirms the suspicion of a portosystemic shunt. An extrahepatic porto-azygos shunt is seen. Based on the CT images, it appears that the shunt feeds into the dilated right azygos vein cranial of the diaphragm and a tortuous shunt loop is seen caudal of the diaphragm.

**INTERPRETED BY**

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The mineral attenuating material within the renal pelvis of both kidneys is very likely to represent ammonium urates. The left renal cortical cyst is not necessarily of clinical significance. The findings are not typical for an abscess, hematoma, or neoplasia.

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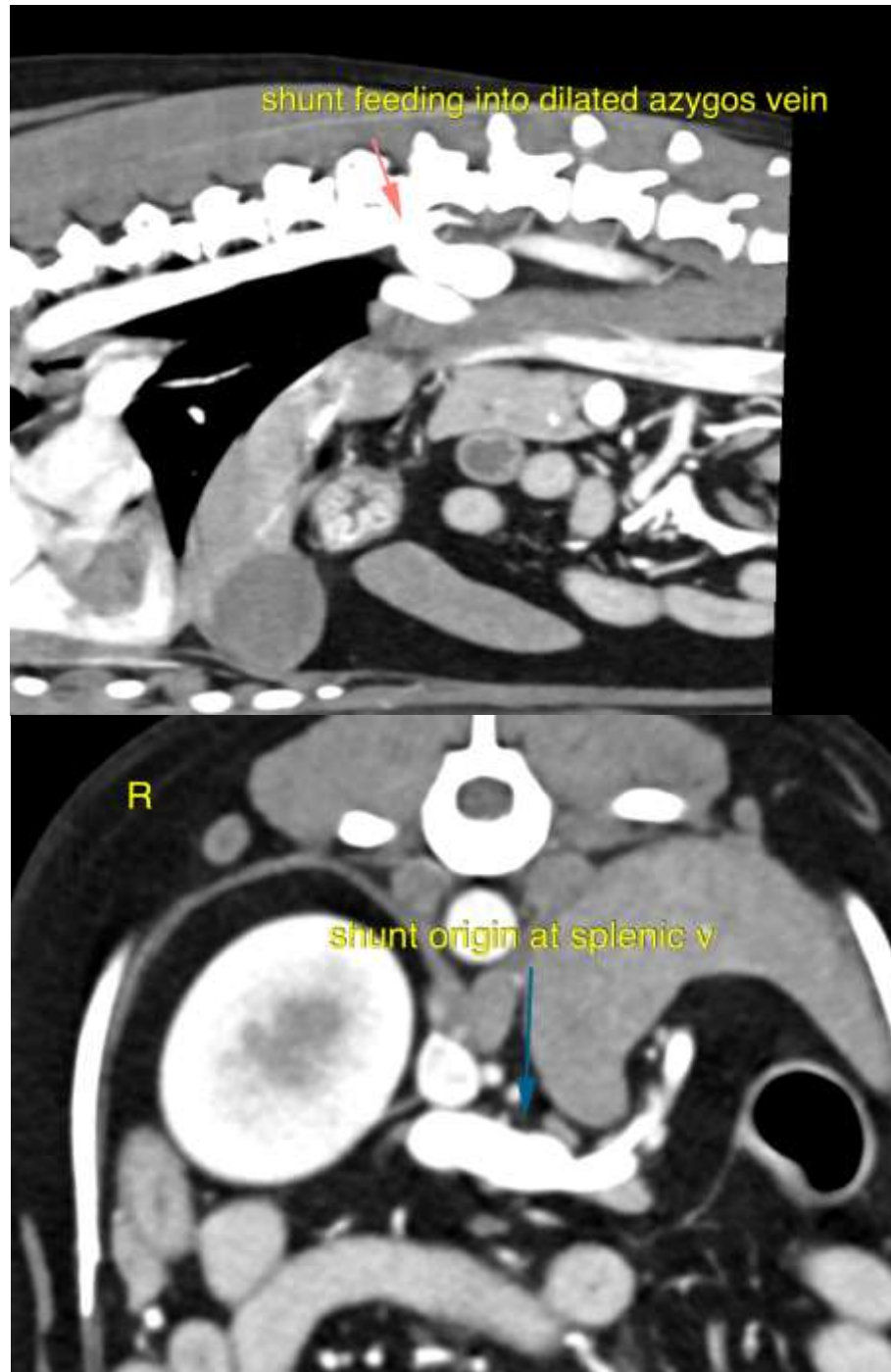
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**SPECIES**

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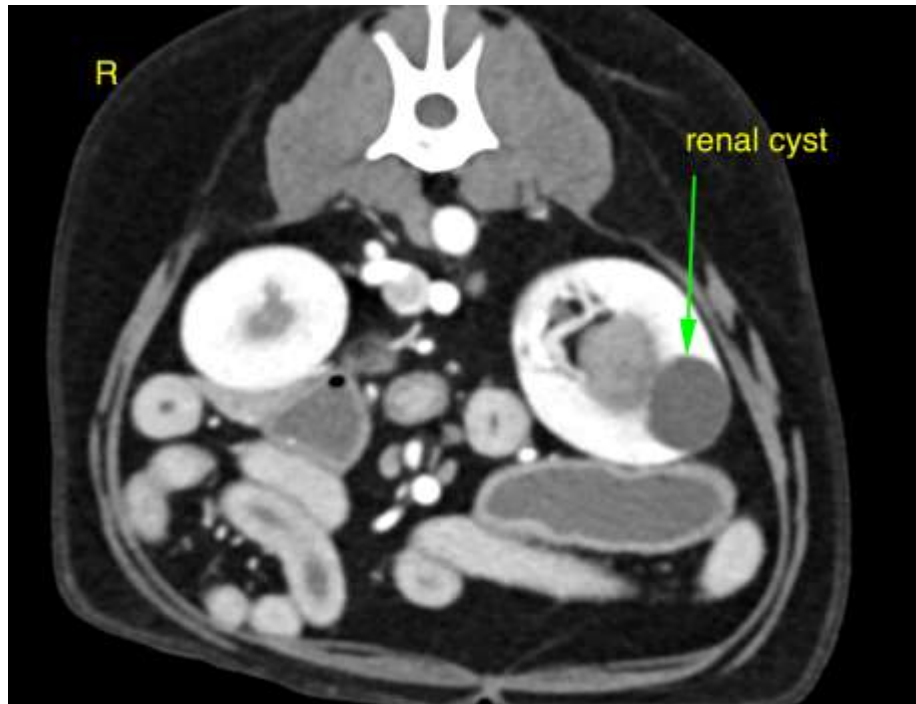
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**AGE**

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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.

**HOSPITAL NAME**

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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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