**PATIENT**

Trey Cowden

SPECIES

Canine

BREED

Labrador

SEX

MN

AGE

10 years

WEIGHT

92 lbs.

INTERPRETED BYR. McKenzie Daniel,
DVM, DABVP (Canine
and Feline)**IMAGING
PERFORMED BY**

Rachel Runnells, RVT

HOSPITAL NAMESVS Imaging Kansas
City**REFERRING VET**

Dr. Amy Servos

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13371

DATE

1/10/22

PRESENTING CLINICAL SIGNS

Presented for lethargy, moaning and grunting as if in pain.

Abnormal PE/Chem/CBC/UA Results: Multiple lipomas SQ, rest of exam WNL. Bloodwork: Retic. hemoglobin 23.4, Platelets 610, Calcium 12.3, Total Protein 7.7, Albumin 4.3, ALT 160, ALP 620, Cholesterol 372.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes was noted.

No overt pathology in the area of the residual prostate.

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and mild loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. The left kidney measured 7.0 cm in length. The right kidney measured 7.4 cm in length.

Adrenal Glands

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.75 cm width at the caudal pole and 0.65 cm width at the cranial pole.

The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.75 cm width at the caudal pole and 0.79 cm width at the cranial pole.

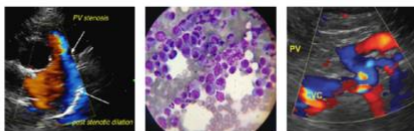
Spleen

The spleen exhibited primarily finely textured parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Mild generalized parenchyma heterogeneity was present without evidence of nodular changes. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. The parenchymal heterogeneity is likely consistent with benign changes such as extramedullary hematopoiesis or age-related remodeling with minor potential for inflammatory or neoplastic disease.

Liver/ Gallbladder

The liver exhibited subjective mild to moderate enlargement. Generalized hepatic parenchymal remodeling was present with intermittent to multifocal isoechoic to nonhomogeneous subtly hypoechoic intraparenchymal nodules to nodular masses. An example of a nodular mass measured 6-7 cm in diameter. An example of a nodule measured 3.0 cm in diameter. Some of the nodules within the liver parenchyma appeared to mildly distort the hepatic capsule yet without evidence of parenchymal escape.

The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.

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Gastrointestinal

The visualized gastric walls were sonographically normal. The stomach contained moderate, exhibiting progressive to focal strong distal acoustic shadowing ingesta without overt evidence of obstruction to pyloric outflow.

The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction, or foreign material.

Normal visible colon wall layers were present with apparent formed feces in lumen.

Pancreas

The parenchyma of the left limb, body, and right limb of the pancreas presented isoechoic to the adjacent omental fat. A normal curvilinear capsule contour of the pancreas was present. The visible pancreatic duct was normal. No signs of active inflammation or neoplastic disease were evident.

Free Abdomen

No omental masses, lymphadenopathy or peritoneal effusion was present.

ULTRASONOGRAPHIC FINDINGS

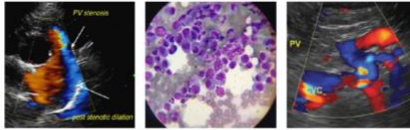
- Hepatomegaly exhibiting parenchymal remodeling and nonspecific intraparenchymal nodules to modular masses
- Progressive to strongly shadowing gastric ingesta
- Bilateral chronic renal changes

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Assuming normal clotting status, ultrasound guided FNA of the hepatic parenchyma and nodule to nodular mass, if accessible, recommended for screening cytology in the face of hypercalcemia. The overall hepatic changes, including the nodules to modular masses, were nonspecific with considerations including vacuolar or inflammatory hepatopathy with areas of nodular to regenerative hyperplasia, lipogranulomas, hematopoiesis, while the potential for hepatic neoplasia, although not definitive, is of concern given the hypercalcemia.

The gastric ingesta may indicate recent meal ingestion. Potential for some degree of gastric stasis may be considered, if documented NPO. Technically, the possibility of gastric foreign material within the ingesta cannot be definitively excluded. Sonographic or radiographic monitoring for evidence of normal gastric emptying recommended.

Three-view chest radiographs and rectal palpation would be warranted given the hypercalcemia. Thorough musculoskeletal and neurological examination recommended, if not done.



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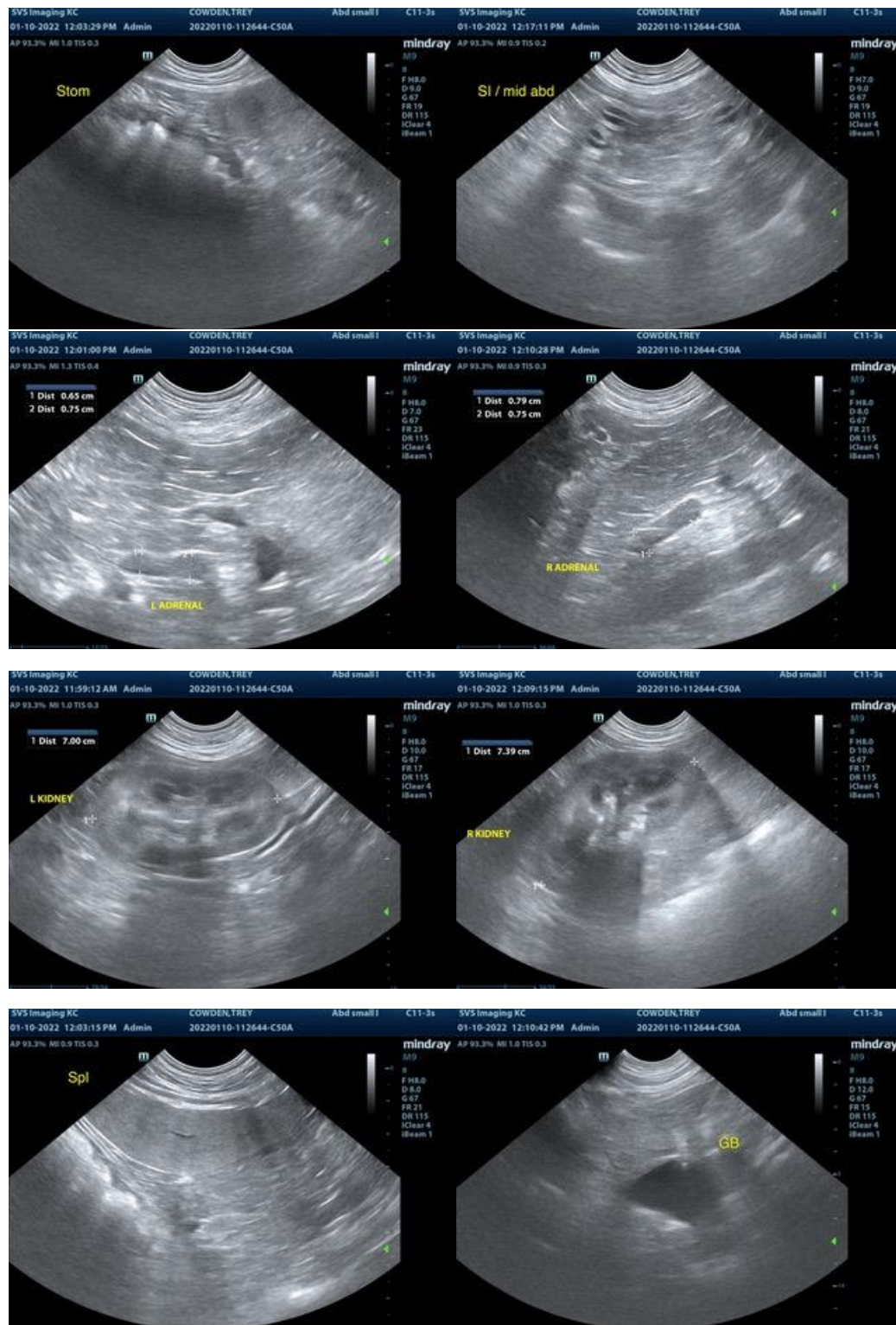
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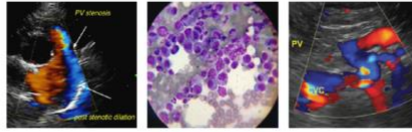
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)
info@SonoPath.com