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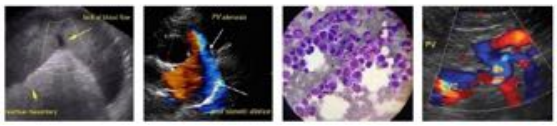

THE FOCAL ZONE
IMAGING PERFORMED BY
289-808-2608 info@thefocalzone.com

PATIENT

Bella Sullivan

SPECIES

Canine

BREED

Pomeranian Chihuahua Mix

SEX

Spayed female

AGE

13 years

WEIGHT

8.7 kg

INTERPRETED BY

Eric Lindquist, DMV DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Crystal Hill, RVT

HOSPITAL NAME

Beatties Burlington PH

REFERRING VET

Dr. Ruggieri

INVOICE

40238

DATE

10/21/22

PRESENTING CLINICAL SIGNS

History: BAR, CRT<2S, MM pink, euhydrated PU/PD, started when P was on Pred in August. Has decreased since stopping meds, but O said still drinking a bit more than usual. No V/D Hx of tracheal collapse, heart murmur. Been on hydrocodone for years. Pred was given in August for coughing consult. Eating more Panting Hair loss Licking paws, hx of allergies. All major c/s started when P was put on Pred Back legs sometimes gives out. No dragging of feet. Grade 3/6 SHM Sparse hair loss symmetrically on back, brittle haircoat. Weightbearing on all four limbs. Normal proprioception. Comfortable on spinal palpation. Currently no meds.
Abnormal PE/Chem/CBC/UA Results: ALKP 1348

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The pelvic urethra was imaged 2.0 cm beyond the cystourethral junction and appeared normal. The ureters were not visible which is normal. No uroliths or sediment were visualized and anechoic urine was present. No evidence of inflammatory or neoplastic changes was noted. Ureteral papillae were normal.

The **kidneys** revealed largely normal size and structure, corticomedullary definition and ratio (cortex 1/3 of medulla) were essentially maintained with some age-related loss of curvilinear patterns regarding the capsule and C/M junction. The cortices presented largely uniform texture with some increased echogenicity expected for his age patient. Medullary structure differed distinctly from that of the cortex and no evidence of pelvic dilation was present. The right kidney measured 4.35 cm. The left kidney measured 4.4 cm.

Adrenal Glands

The left **adrenal gland** was enlarged, irregular and measured 3.19 x 1.4 cm at the cranial pole and 1.39 cm at the caudal pole. No obvious phrenic vein or caval invasion was noted from the left adrenal gland. This appears resectable. The right adrenal gland was normal in size and contour measuring 1.48 x 0.37 cm at the caudal pole and 0.65 cm at the cranial pole.

Spleen

The **spleen** revealed hyperechoic lipogranulomatous nodules measuring up to 0.86 cm. Irregular swelling of the spleen was noted and measured 3.0 cm and subjectively appears benign. This is likely a congenital deformation as it does not appear to be pathological. This could be removed at the time of surgery.

Liver

The **liver** images from right and left intercostal as well as subcostal views revealed subjectively normal liver size, contour, and structure. Some age-related parenchymal remodeling was noted but likely not clinically significant at this time. Hyperechoic nodule was noted in the left medial liver measuring 1.07 x 0.89 cm. Multi-focal, hyperechoic nodules were also noted. Vascular and biliary tracts were of normal volume and no evidence of congestion was noted. The gallbladder and common bile duct were unremarkable.

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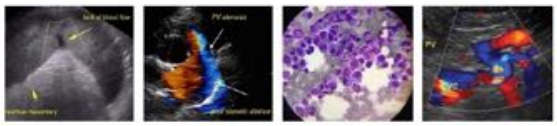

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Gastrointestinal

There was some residual chyme and gas was noted in the **stomach**, yet not pathological. This is consistent with end post prandial presentation. Transit of chyme into the small intestine was normal. Curvilinear patterns were maintained throughout the GI tract. No evidence of pathology. Small and large intestine demonstrated normal luminal chyme and stool consistency respectively. No obstructive or overt infiltrative disease was noted. No associated abnormal lymphatic activity was noted.

Pancreas

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.

ULTRASONOGRAPHIC FINDINGS

Enlarged left adrenal gland.

Multi-focal, lipogranulomatous nodules were noted in the liver.

Irregular spleen.

Geriatric abdomen.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Left adreanlectomy is warranted given the patient's history. Work-up for adrenal dependent Cushing's is indicated. Inspection and/or removal of the spleen should be considered at the time of surgery. Adenocarcinoma and pheochromocytoma are all possible. Hyperplasia is possible; however, given the patient's history this is unlikely.

Efficient & Accurate Cushing's Work up-Lindquist

Notes regarding Cushing's Clinical Presentations:

Nearly all Cushing's dogs have SAP elevations and true PU/PD (USG < 1.025) and most are polyphagic.
Cushing's dogs are > 6 years and usually > 9 years old, usually have poor skin coats, body scores > 3/5, and are usually sedentary animals.
Its important to remember that Cushing's dogs usually look and play the part and other diseases cause false + stress related cortisol spikes. On rare occasion a Cushing's dog will not follow the rules but this is truly an exception.
Potential Cushing's patient workups can be costly and frustrating if not definitive and, in my experience, the non-definitive patient usually has something else going on that may be contributing to some of the clinical signs a Cushing's dog will have, especially SAP elevations or PU/PD. Based on this prelude of information I came up with the following algorithm in the spirit of diagnostic efficiency. The following suggested protocol is based on current available literature on Cushing's disease and extensive clinical-sonographic experience evaluation + Cushing's and False + LDDST & ACTH stim. cases in order to maximize the efficiency of a Cushing's workup in practice.

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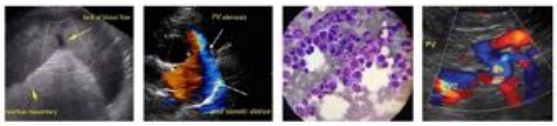

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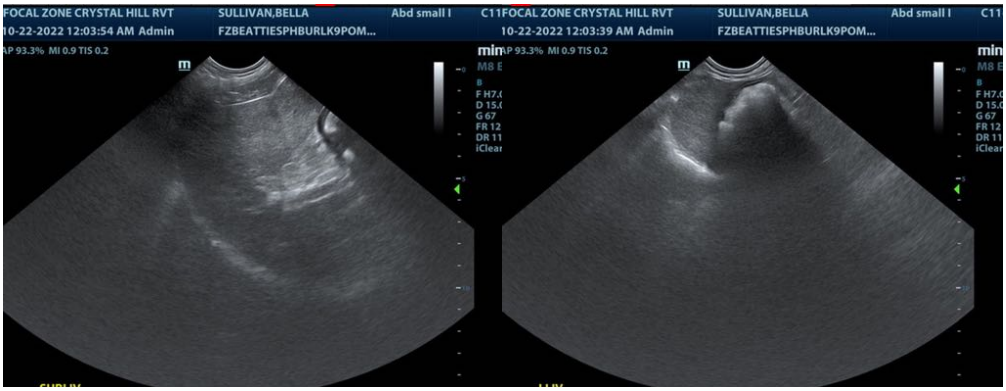

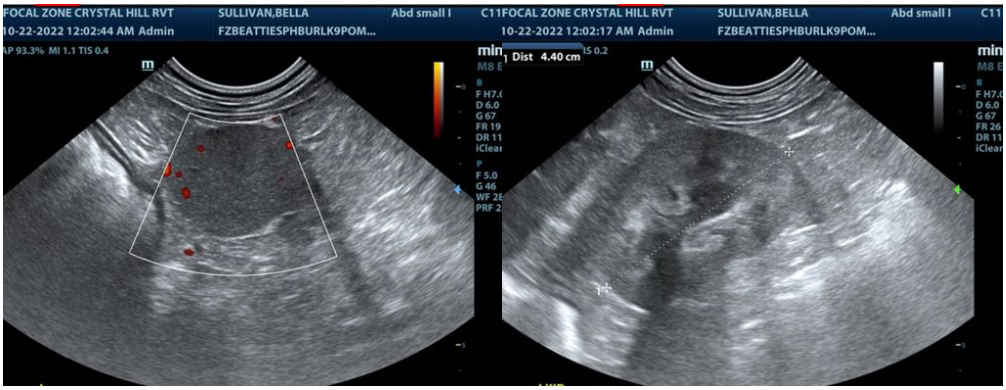

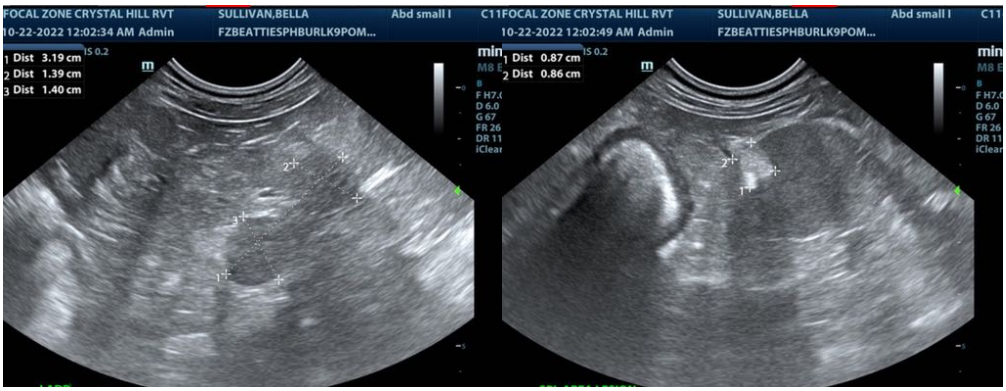

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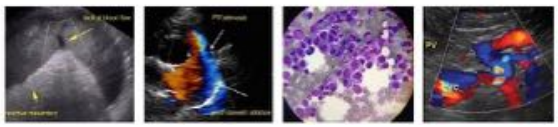

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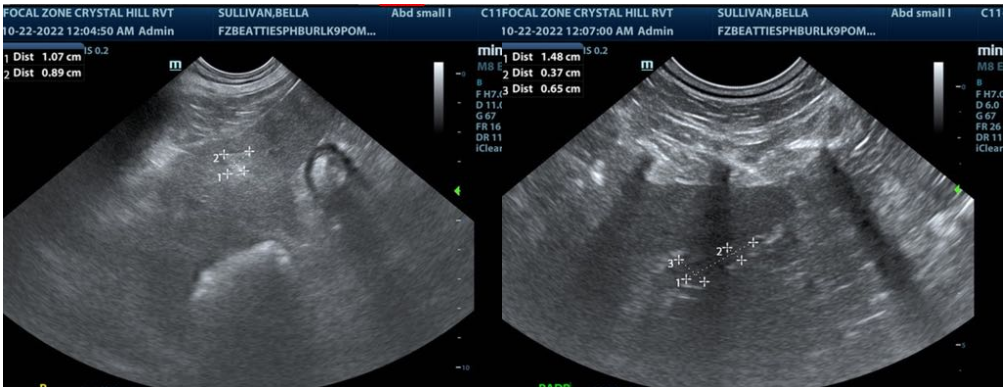

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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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
Eric.Lindquist@SonoPath.com