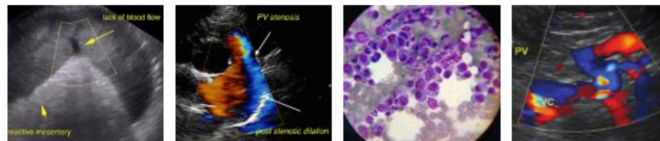

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1-800-838-4268 info@sonopath.com

PATIENT

Molly Bruesch

SPECIES

Canine

BREED

Border Collie

SEX

FS

AGE

13

WEIGHT

17kg

INTERPRETED BY

Eric Lindquist, DMV DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Callihan Animal Emergency Care

HOSPITAL NAME

Animal Emergency Care

REFERRING VET

Dr. Williams Animal Emergency Care

INVOICE

12763ag

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01/24/2023

PRESENTING CLINICAL SIGNS

S: 13 yr f/s Border Collie presents as transfer from Oak Harbor, Best Friends, Dr. Sering. Patient has been Diabetic, on Vetsulin for three years. Recently lost vision. Owners have been managing at home, monitoring BG 2-4x daily (always before meal/injection time). At first maintained somewhat well on 10-11 units BID, but in month, has been harder to control, and had to increase significantly, up to 18 units BID now. Still very high BG. She has been not eating well, vomiting what she does eat all day today, vomiting intermittently last 2-3 days. Can't keep down water today. No insulin was given today. Urinary accidents in home recently as well. She has recently been doing some soft quiet coughing, and nose is congested. Owner feels she may have caught something from her family's dog on a visit last month to Wisconsin. however, they have been back 3 weeks from my understanding. Diet: Sojo raw freeze dried. She has done better on this than they thought she did on Glycobalance. They have not used flea treatment and RDVM saw tapeworm segments (meds were sent with them -- we have them at this time). They brought their insulin: VETSULIN, keeping in fridge.

Abnormal PE/Chem/CBC/UA Results: -abnormal CPL - severe hyperglycemia >600 - BUN mildly elevated with normal CREA, -Hyperphosphatemia, -Mildly increased ALT and ALK PHOS, -and moderately elevated Lipase (normal Amylase). Lytes normal - Urinalysis showed glucosuria, bacteria, and ketonuria, as well as significant WBC.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder and visible pelvic urethra were unremarkable for the level of repletion presented. The urine, however, did present moderate mildly echogenic debris consistent with mucous, exfoliated cells from renal or bladder origin, and/or blood clots as these echogenic changes can all present similarly. This is often related to urinary tract infection but may represent simple evidence of exfoliated debris or sterile inflammation. Cystocentesis, urinalysis, +/- culture would be recommended to rule out and define any UTI.

The kidneys were normal in size and contour; however, a minor hyperechoic ring was noted at the corticomedullary junction. This is consistent with diabetic nephropathy. This is likely from glucosuria. However, assessment for proteinuria is also warranted. This is an idiopathic finding, but an expected finding in diabetic patients. The left kidney measured 5.1 cm in length. The right kidney measured 7.1 cm in length.

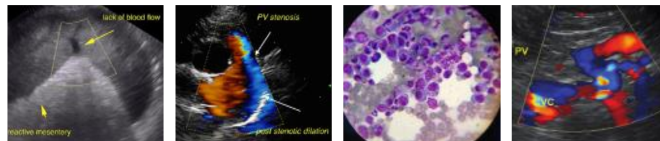
Adrenal Glands

The left adrenal gland was mildly heterogenous, slightly irregular and mildly swollen with a minor expansion at the level of the phrenic vein. Possible early phrenic vein invasion measured ~ 0.50 cm. Emerging neoplastic criteria such as pheochromocytoma cannot be ruled out. The left adrenal gland measured 0.81 cm caudal pole width. The right adrenal gland measured 0.77 cm caudal pole width by 1.2 cm cranial pole width.

Spleen

The spleen presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule was smooth without noticeable expansion or deviation from within the spleen or adjacent pathology. The splenic vasculature demonstrated normal volume without signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarctual changes were noted.

Liver



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The liver was swollen and irregular with a left lobe mass measuring ~ 8.0 cm impinging upon the spleen. The gallbladder was mildly congested and mildly over distended.

Gastrointestinal

Examination of the gastrointestinal tract revealed a stomach and intestine free of stasis, of normal wall thickness, acceptable curvilinear mural detail, and peristaltic activity. 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

A left pancreatic cyst was noted measuring 1.5 cm.

Free Abdomen

Slight free fluid was noted.

ULTRASONOGRAPHIC FINDINGS

- Left lobe liver mass
- Irregular left adrenal gland, bilateral adrenal hypertrophy
- Urinary bladder debris
- Diabetic nephropathy
- Left pancreatic cyst
- Slight free fluid

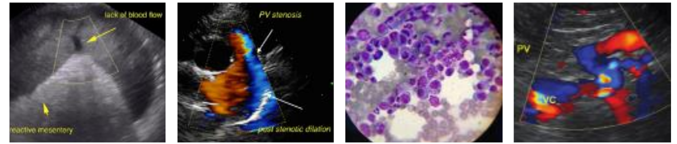
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Urinary tract infection may be playing a role in this patient +/- the hepatic mass. The hepatic mass appears resectable with left liver lobectomy. A hepatic mass FNA is indicated for further definition. A screening BP is advised to assess for evidence of hypertension which may allude to emerging left adrenal neoplastic criteria i.e., pheochromocytoma. A CT evaluation would be ideal both from the left adrenal standpoint and the liver mass for surgical planning. A full urinary workup is indicated.

Liver mass differentials include hepatoma or carcinoma, with round cell neoplasia less likely.

This is a suggestive checkoff list when faced with an unregulated diabetic patient:

- UTI
- Dietary indiscretion/intolerance
- Pancreatitis
- Hyperthyroidism/hypothyroidism
- Exogenous steroids (including topical eye meds)
- Cushing's
- Acromegaly
- Owner compliance
- Insulin quality issues



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- Antibodies to insulin
- Underlying Neoplasia
- Diffuse liver disease

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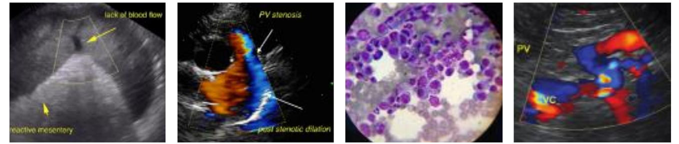

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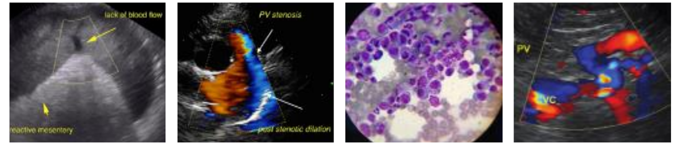
The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I



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can be of any further assistance please contact me.

Eric Lindquist, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com
Eric.Lindquist@SonoPath.com