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Clinical Sonography & Telecytology
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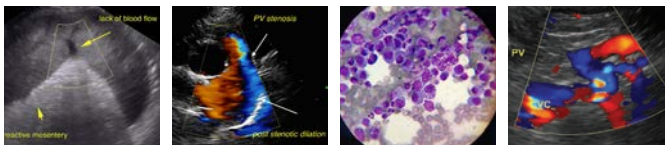

SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT
Sandy Ritchey

SPECIES
Canine

BREED
Poodle

SEX
Spayed Female

AGE
17

WEIGHT
4.5 kg

INTERPRETED BY
Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY
Kacie Edwards

HOSPITAL NAME
Boren Vet Medical Teaching Hospital

REFERRING VET
Dr. Biddick

INVOICE
45835

DATE
3/10/23

PRESENTING CLINICAL SIGNS

Sandy is a 17 year old female spayed poodle that presented to ECC for stabilization prior to abdominal ultrasound and liver aspiration. Sandy has had a history of anorexia, vomiting, PU/PD, and weight loss. She presented to primary care on 3/8 and bloodwork was ran and radiographs were taken. Radiographs revealed a suspected gallbladder mucocele with loss of serosal detail in the cranial abdomen. Bloodwork revealed an elevated ALT (1899 IU/L) and ALP (1465 IU/L). A surgical consult and potential surgery was planned for 3/10 so she was hospitalized for stabilization and further diagnostics. Ultrasound revealed no evidence of a mucocele and a suspected liver mass was visualized. She was placed on maintenance fluids to maintain hydration, oral gabapentin and trazadone for anxiety, and oral metronidazole and IV ampicillin sublactam for potential cholangiohepatitis. A CBC/Chem was performed and revealed an ALT that was too low to read, an elevated ALP (>2000 U/L) and GGT (48 U/L).

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. 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 were 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 left kidney measured 3.8 cm.

Adrenal Glands

Both **adrenal glands** were visualized and recognized as having largely normal shape, size, position and acceptable echogenicity for this age group and breed. Some heterogeneity was noted within the adrenal parenchyma without concerning capsular distortion. These changes are likely age related but should be monitored by sonogram should the patient be suspected of having adrenal disease. The right adrenal gland measured 1.78 cm x 0.40 cm at the caudal pole and 0.45 cm at the cranial pole.

Slight irregularity of the left adrenal gland noted at the level of the left phrenic vein. Some occupation of the phrenic vein with thrombus or peripheral disease may be an issue, however at a very early phase. The left adrenal gland measured 1.84 cm x 0.56 cm at the caudal pole and 0.53 cm at the cranial pole.

Spleen

The **spleen** presented discrete and diffuse hypoechoic micronodular parenchyma. The capsule was generally smooth without noticeable impingement from within the spleen or from pathology in the adjacent abdomen. Hyperechoic lipogranulomatous changes noted. The splenic vasculature demonstrated normal volume without signs of congestion or significant contraction. These changes are consistent with age related benign nodular hyperplasia. However, early hemangiosarcoma, lymphoma or mast cell neoplasia could not be entirely ruled out. Fine needle aspirate or biopsy following coagulation panel would be ideal especially of any weight loss is an issue. Otherwise, follow up ultrasound in 3-4 weeks to track these changes would be a more conservative approach.

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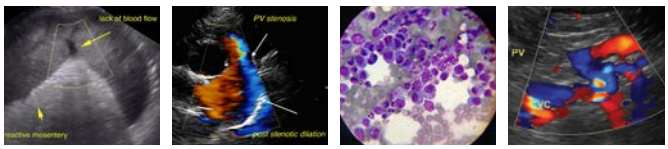

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Liver

The **liver** presented multifocal mixed hypoechoic expansive masses on both the left and right side, the largest of which measured up to 5.0 cm with regional inflammation and undifferentiated tissue proliferation. Hyperechoic increased portal markings noted. Areas of non-vascular changes would suggest necrosis. The gallbladder presented mildly edematous wall.

Gastrointestinal

Minor retention of ingesta noted in the **stomach**. The gastric wall was slightly thickened, yet a minor amount of chyme. It was encompassed by the hepatic pathology and regional inflammation. 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.

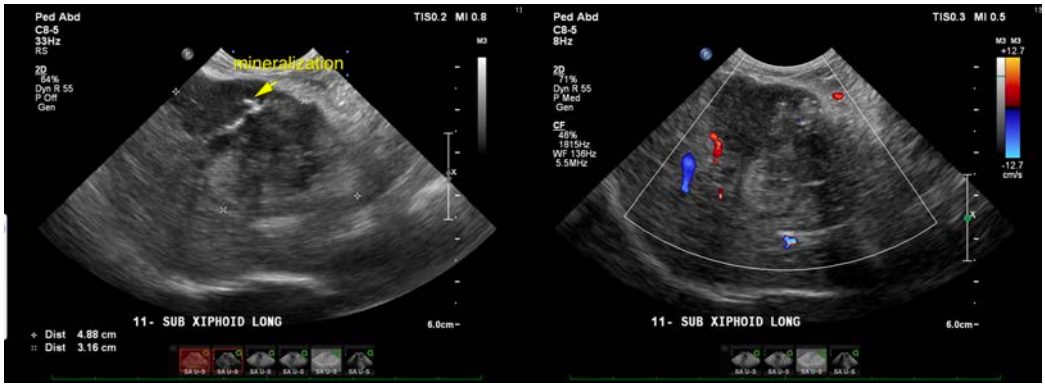
ULTRASONOGRAPHIC FINDINGS

- Left- and right-sided liver masses – carcinoma, metastatic disease, round cell neoplasia, non-neoplastic necrosis and abscessation possible.

- Slightly irregular left adrenal gland – likely hyperplasia. However, the phrenic vein appeared to be possibly occupied with thrombus or proliferative disease.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Ultrasound guided FNA with cytology and culture indicated. Prognosis is very guarded depending upon cytology results.



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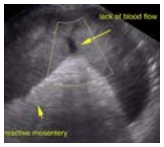
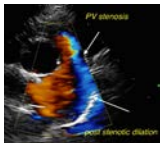
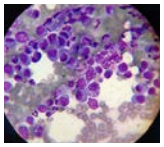
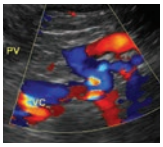

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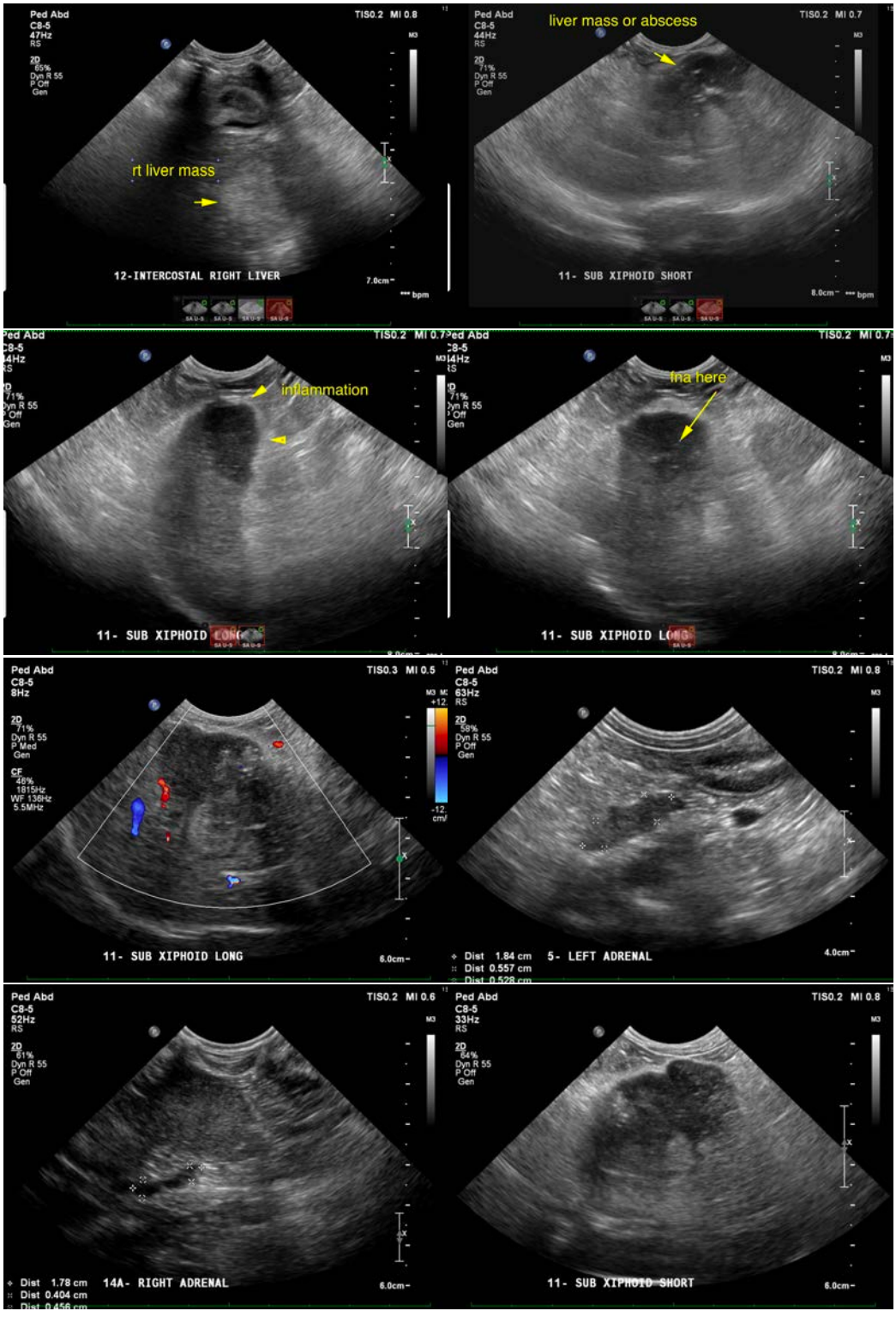

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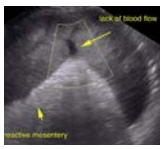
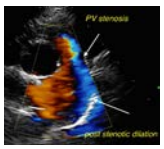
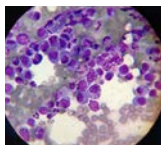
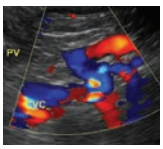

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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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

info@SonoPath.com