



PATIENT

Bill Bray

SPECIES

Canine

BREED

Shih Tzu

SEX

Neutered Male

AGE

16 Years

WEIGHT

11.8

INTERPRETED BY

Eric Lindquist, DMV

DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Salas

HOSPITAL NAME

Tenaflly Vet Center

REFERRING VET

Dr. Salas

INVOICE

46697

DATE

4/14/23

PRESENTING CLINICAL SIGNS

elev platelets 763k, BUN sl elev 34, ALT 2277 AST 381, ALP 488, pro bnp sl elev 916, urine shows 1.031 sp gr with 2+ protein; rest of panel is normal. pet is losing weight despite eating ok per owner. has some anxiety at night, has a heart murmur gr 3/6 pmi R side, is having difficulty walking, his balance seems off or he is weak, has cataracts and periodontal disease. pet was started on adequate injections and amantadine for arthritis. gabapentin for pain/arthritis and anxiety. deramaxx was initially rx but d/c once the labs came in. today had a bile acid response test and an abd u/s to better define the liver enzyme elevations.

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. Slight pelvic calculus in the right kidney. The right kidney measured 4.0 cm. An anechoic cyst was noted in the left kidney measuring 2.0 cm at the dorsal cortex. The left kidney measured 4.3 cm with minor pyelectasia.

Adrenal Glands

Both **adrenal glands** were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The right adrenal gland measured 0.53 cm at the caudal pole and 1.2 cm at the cranial pole. The left adrenal gland measured 0.50 cm at the caudal pole and 0.40 cm at the cranial pole.

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

The left **liver** presented a mixed echogenic, expansive and microcystic 4.5 cm x 4.0 cm mass with puffy cloud-like appearance, strongly suggestive for carcinoma. The remainder of the liver appeared unremarkable. Minor increased portal markings noted. The gallbladder and common bile duct were unremarkable.

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



PATIENT

Bill Bray

demonstrated normal luminal chyme and stool consistency respectively. No obstructive or overt infiltrative disease was noted. No associated abnormal lymphatic activity was noted.

SPECIES

Canine

Pancreas

The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Some parenchymal remodeling, however, with mild deviation from curvilinear normalcy was observed. Pancreatic duct and capsular irregularities were present consistent with age related changes. If pain upon imaging (+ Murphy sign) was present or if the patient is focally painful in subxyphoid palpation then low-grade smoldering chronic pancreatitis should be suspected.

BREED

Shih Tzu

ULTRASONOGRAPHIC FINDINGS

SEX

Neutered Male

- Left liver mass, potentially resectable – suspect carcinoma. Chronic inflammatory hepatopathy otherwise.
- Moderate degenerative renal changes with left renal cyst and minor pyelectasia in the right kidney
- Age related pancreatic changes

AGE

16 Years

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

CT evaluation recommended for surgical planning. FNA of the liver mass could be considered to confirm suspicion of carcinoma, less likely non-neoplastic granuloma. However, surgical approach would be ideal if CT allows for successful surgical planning.

WEIGHT

11.8

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

SonoPath CT Services are offered at the SonoPath Imaging and Veterinary Education Center, 141 Main St (rt 206), Andover, New Jersey, a 20-minute drive west on route 80/206 North from the route 80/287 interchange/Parsippany, New Jersey. More information can be found at

<https://sonopath.com/services/sonopath-ct-services>

IMAGING PERFORMED BY

Dr. Salas

HOSPITAL NAME

Tenaflly Vet Center

REFERRING VET

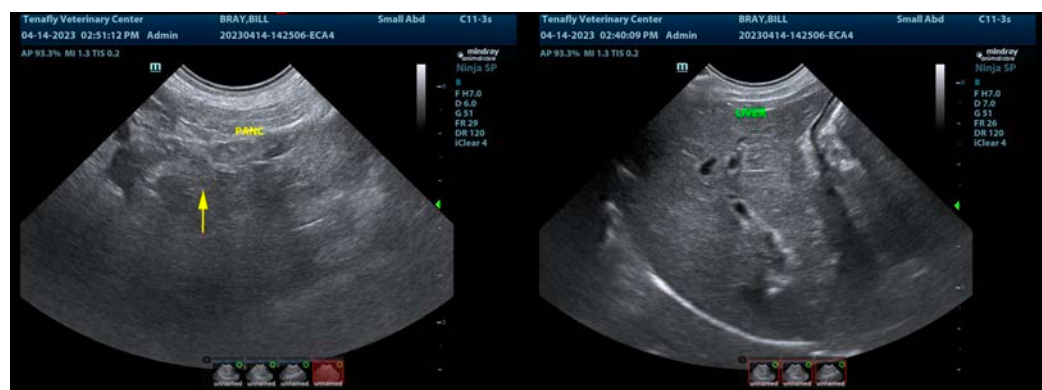
Dr. Salas

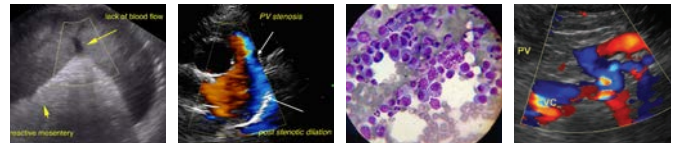
INVOICE

46697

DATE

4/14/23





PATIENT

Bill Bray

SPECIES

Canine

BREED

Shih Tzu

SEX

Neutered Male

AGE

16 Years

WEIGHT

11.8

INTERPRETED BY

Eric Lindquist, DMV

DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Salas

HOSPITAL NAME

Tenafly Vet Center

REFERRING VET

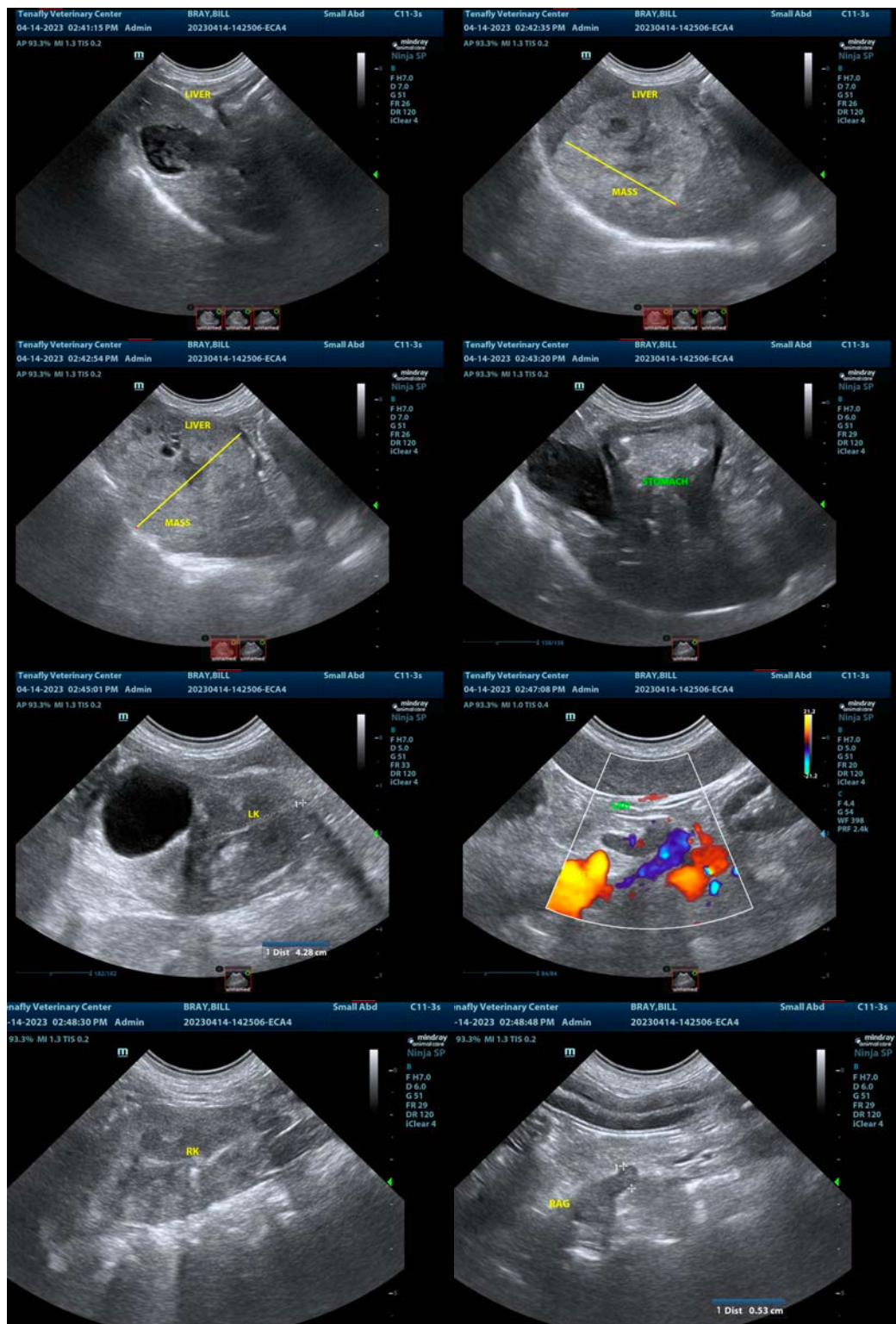
Dr. Salas

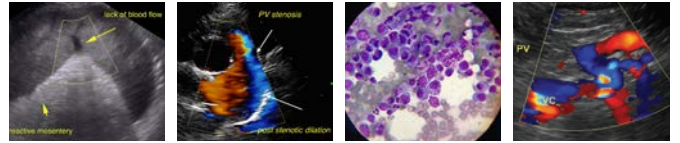
INVOICE

46697

DATE

4/14/23





PATIENT

Bill Bray

SPECIES

Canine

BREED

Shih Tzu

SEX

Neutered Male

AGE

16 Years

WEIGHT

11.8

INTERPRETED BY

Eric Lindquist, DMV

DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Salas

HOSPITAL NAME

Tenafly Vet Center

REFERRING VET

Dr. Salas

INVOICE

46697

DATE

4/14/23



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