



PATIENT

Guiness Hartwig

SPECIES

Canine

BREED

Havanese Mix

SEX

Neutered Male

AGE

8 Years

WEIGHT

12.5

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Jenn

HOSPITAL NAME

Rockaway AH

REFERRING VET

Dr. Kahn

INVOICE

18981

DATE

12/5/22

PRESENTING CLINICAL SIGNS

History: elevated renal values Current meds Azodyl renal diet

Abnormal PE/Chem/CBC/UA Results: Creat 3.5 BUN 89 all other WNL

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **urinary bladder** revealed sand accumulation. The pelvic urethra was imaged 3.0 cm beyond the cystourethral junction.

The **kidneys** presented severe dystrophic changes/interstitial nephrosis pattern with mineralization. The left kidney measured 3.93 cm. The right kidney measured 3.0 cm. Complete disrupted architecture was noted owing to degenerative process. Cortical infarcts were also noted in both kidneys. Mineralization was noted in both kidneys as well.

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 left adrenal gland measured 1.86 cm x 0.71 cm at the caudal pole and 0.55 cm at the cranial pole. The right adrenal gland measured 1.95 cm x 0.2 cm at the cranial pole and 0.55 cm at the caudal 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 **liver** images submitted revealed subjectively normal liver size, contour, and structure. Parenchymal echogenicity was naturally coarse and hypoechoic to the spleen. Vascular and biliary tracts were of normal volume with no evidence of congestion. The gallbladder presented acceptably thin walls with primarily anechoic content. The cystic and common bile ducts were normal. No pathological hepatic lymphadenopathy was evident. No overt structural evidence of inflammatory, infiltrative or regenerative pathology was evident.

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. Minor transit of ingesta was noted.

Pancreas



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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.

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Canine

ULTRASONOGRAPHIC FINDINGS

- End stage degenerative renal disease
- Urinary bladder sand
- Normal gastrointestinal tract with minor transit of ingesta noted

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Havanese Mix

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The kidney changes may be secondary to periodic passage of calculi and sand with obstructive and secondary degenerative changes; however, intrinsic disease is also present. The kidneys subjectively appear end stage.

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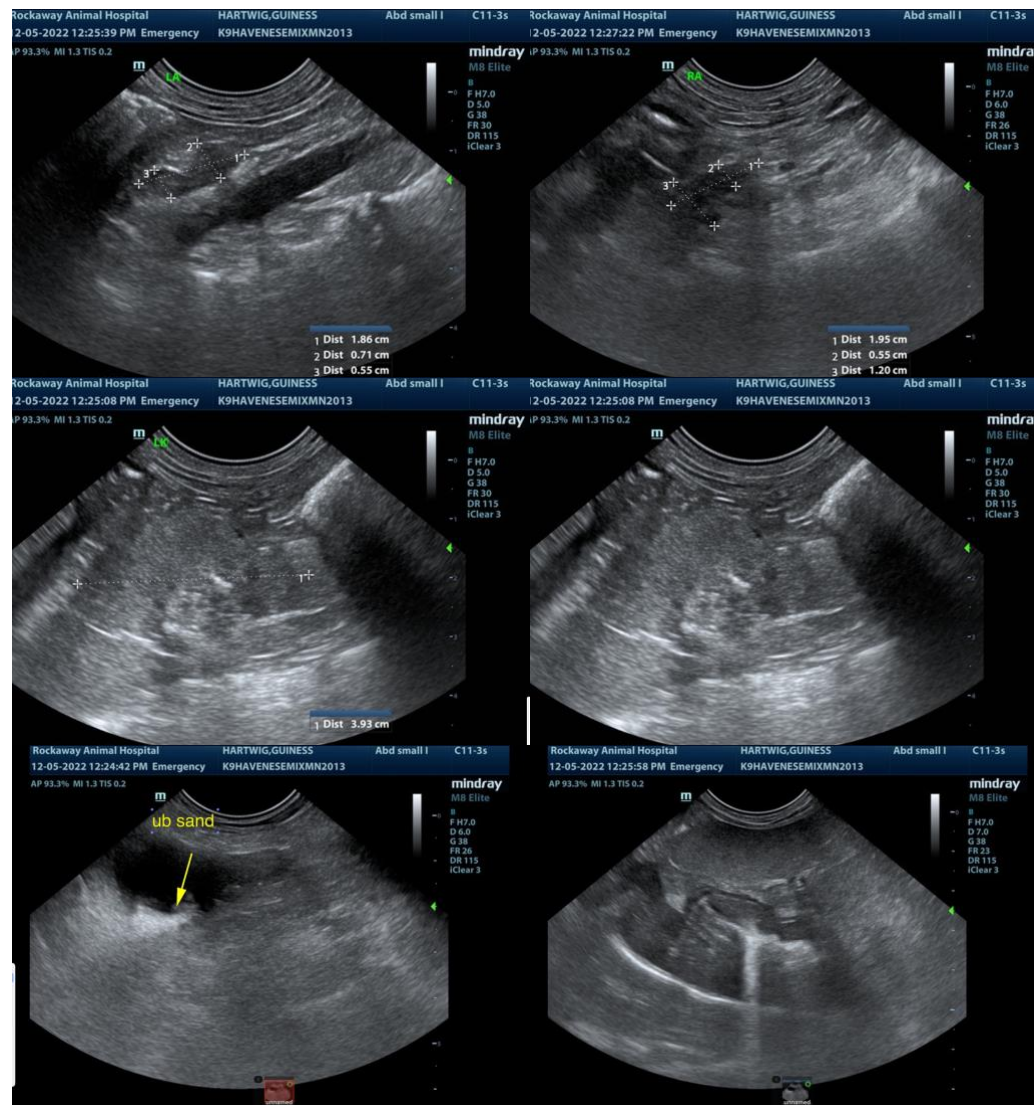
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The information and recommendations provided are based on the images presented by the



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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.

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

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