


PATIENT
PRESENTING CLINICAL SIGNS

Marley Morgan

History: hx of diabetes/Cushing's acute onset vomiting

SPECIES
ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Canine

Urinary System
BREED

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. The ureters were not visible which is normal. The bladder revealed multiple calculi with acoustic shadowing. The largest of which measured approximately 0.4 cm. No evidence of inflammatory or neoplastic changes was noted. Ureteral papillae were normal.

Maltese

SEX

The residual prostate measured 1.0 cm.

Neutered male

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. Slight mineralization was noted. The right kidney measured 5.14 cm.

AGE

9 years

Adrenal Glands
WEIGHT

16.2 lbs

The **adrenal glands** appeared slightly enlarged and swollen. No evidence of focal capsular expansion or invasion into the phrenic veins was noted. No overt suspicion of neoplasia was noted. This is considered likely a hyperplastic change associated with stress or adrenal endocrinopathy (PDH). If isosthenuria is persistently present and the patient morphologically suggests Cushing's disease then ACTH testing would be indicated. The right adrenal gland measured 2.31 x 1.23 cm at the cranial pole and 0.71 cm at the caudal pole. The left adrenal gland measured 1.75 x 0.58 cm at the caudal pole and 0.61 cm at the cranial pole.

INTERPRETED BY

 Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Jenn

Spleen

The **spleen** was normal size and relatively normal contour with multifocal hyperechoic areas of mineralization. This is a benign change; however, can be related to Cushing's disease or other endocrinopathies.

HOSPITAL NAME

Rockaway AH

Liver
REFERRING VET

Dr. Maniar

Exam of the cranial abdomen demonstrated excessive **liver** size and swollen contour. Mild, coarse architecture was noted with increased portal markings and minor parenchymal remodeling is suggestive of an inflammatory component. The gallbladder was collapsed and empty.

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Gastrointestinal
DATE

6/21/22

A minor amount of non-shadowing, non-obstructive ingesta was noted in the **stomach**. 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



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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. 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.

BREED

Maltese

ULTRASONOGRAPHIC FINDINGS

SEX

Neutered male

Adrenal enlargement.
Bladder calculi.
Vacuolar hepatopathy pattern.

AGE

9 years

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

WEIGHT

16.2 lbs

Cystotomy, stone analysis and culture are indicated. Cushingoid status is pituitary dependent given the mild bilateral adrenal enlargement. The patient may be passing calculi periodically from the kidneys to the bladder.

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

Potential Causes of Diabetic Dysregulation

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

IMAGING PERFORMED BY

Jenn

- UTI
- Dietary indiscretion/intolerance
- Pancreatitis
- Hyperthyroidism/hypothyroidism
- Exogenous steroids (including topical eye meds)

HOSPITAL NAME

Rockaway AH

Cushing's

REFERRING VET

Dr. Maniar

- Acromegaly
- Owner compliance
- Insulin quality issues

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- Antibodies to insulin
- Underlying Neoplasia
- Diffuse liver disease

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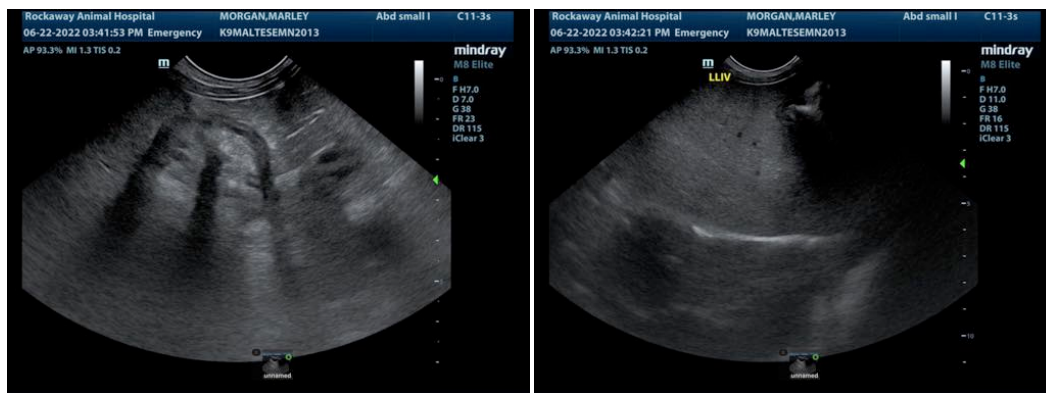
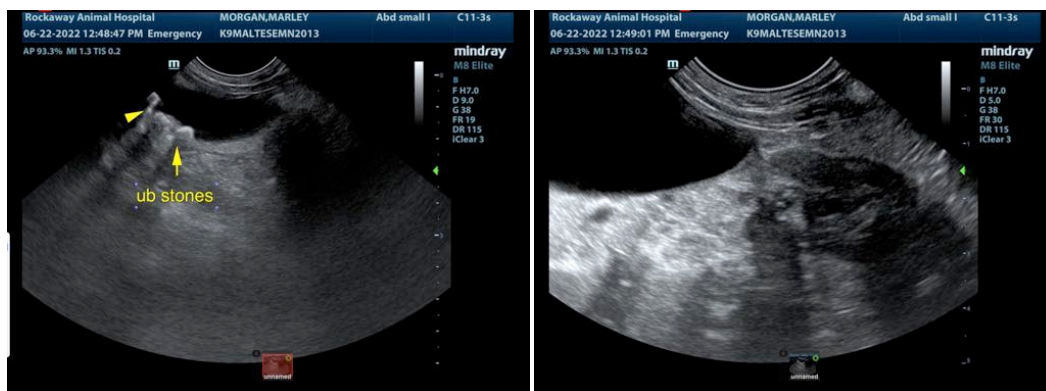
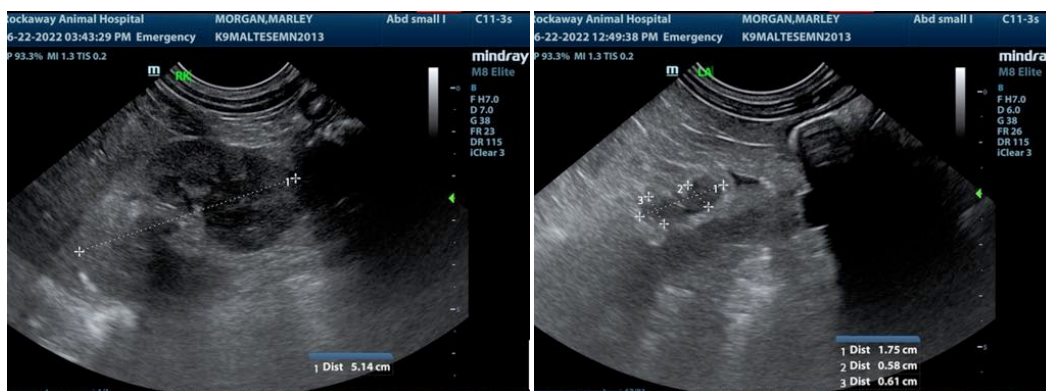
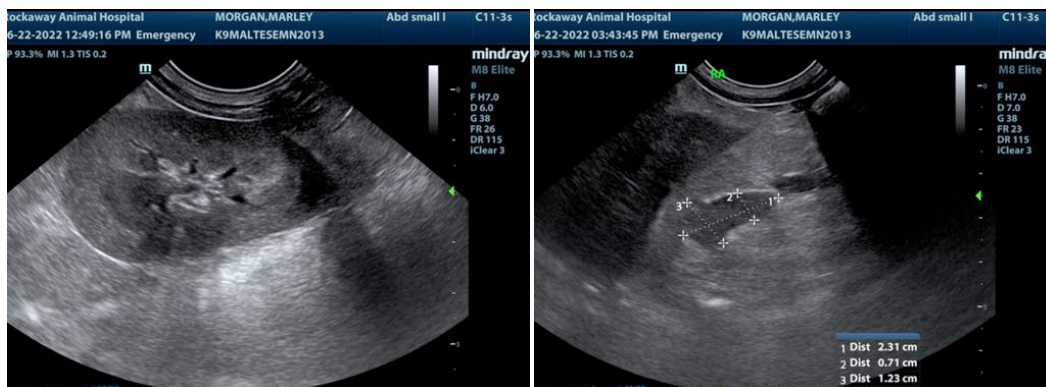
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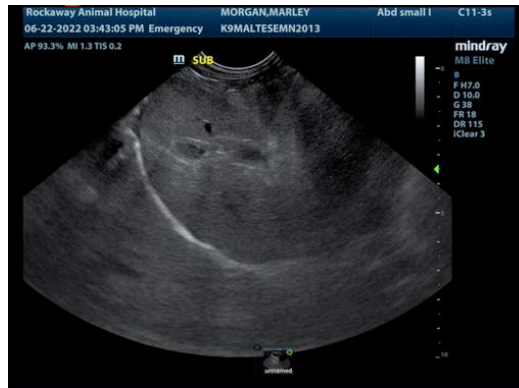
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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