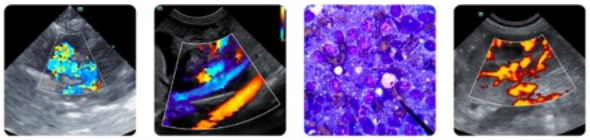


PATIENT

Gwendolyn Thomas

SPECIES

Rabbit

BREED

Rabbit

SEX

Spayed female

AGE

11 years

WEIGHT

4.25 lbs

INTERPRETED BY

Dr. Alicia Angosto Guerrero

IMAGING PERFORMED BY

Heidi Putnam, LVT

HOSPITAL NAME

Northwest Exotic Pet Vet

REFERRING VET

Dr. Ramsell

INVOICE

71696

DATE

2/18/26

PRESENTING CLINICAL SIGNS

- Suspected herniated bladder
- GU: urine dark brown Current meds: Baytril, Reglan, Cisapride, Metronidazole, Mycequin

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The bladder lumen is markedly distended. The wall of the urinary bladder appears thin and smooth. There is abundant intraluminal urinary sludge consistent with mineral sediment. No discrete calculi are identified, and there is no ultrasonographic evidence of mural inflammatory or neoplastic change. The structure identified by the sonographer as corresponding to the hernia does indeed correspond to the urinary bladder.

The left kidney has a normal shape and size, measuring 3.09×1.41 cm, with a cortical thickness of 0.28 cm in the sagittal plane. Renal dimensions are within expected limits for an adult rabbit. The right kidney has a normal shape and size, measuring 2.80×1.57 cm, with a cortical thickness of 0.26 cm in the sagittal plane. Both kidneys: The cortical is isoechoic in comparison to the liver parenchyma. The cortex-to-medulla ratio is within normal limits, and corticomedullary differentiation is preserved. The renal sinus appears hyperechoic, as expected in rabbits. There is no evidence of pyelectasis, nephrolithiasis, or hydronephrosis.

Adrenal Glands

The adrenal glands are uniform in size and contour, with uniformly hypoechoic parenchyma. The left adrenal gland measures 0.27 cm at the cranial pole and 0.27 cm at the caudal pole. The right adrenal gland measures 0.27 cm at the cranial pole and 0.29 cm at the caudal pole. These measurements are within normal limits for a rabbit.

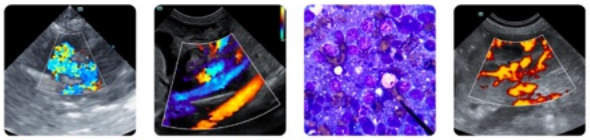
Spleen

Splenic thickness is 0.35 cm. The parenchyma demonstrates normal echogenicity and fine homogeneous echotexture without focal parenchymal abnormalities.

Liver

The liver appears subjectively normal in size, structure, and contour. The parenchyma is uniform and mildly hypoechoic compared to the spleen, with a mildly coarse but homogeneous echotexture. No focal lesions or hepatic lymphadenopathy are observed.

The gallbladder lumen is normally distended. The wall is thin, and the luminal content appears primarily anechoic. The cystic and common bile ducts are not dilated.



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Gastrointestinal

The stomach is distended with a food pattern. It exhibits normal wall thickness (body: 0.10 cm, pylorus: 0.21 cm) and preserved layering. These measurements are within normal limits for a rabbit.

The small intestine has normal wall thickness (duodenum: 0.96 mm; distal small intestinal segment: 0.76 mm) with intact layering. The lumen is empty, with no signs of ileus, tympanism, or obstruction.

The cecum shows a very thin wall (0.29 mm) with normal contents. The appendix could not be visualized. Sacculus rotundus: wall thickness 2.54 mm, normal appearance. The distal colon has a normal wall, with formed feces present in the lumen.

Pancreas

The pancreas was not visualized due to acoustic artifacts generated by the gastrointestinal tract.

Peritoneal Cavity

Evaluation of the peritoneal cavity reveals no abdominal effusion, peritonitis, or lymphadenomegaly.

ULTRASONOGRAPHIC FINDINGS

- Structure identified within the suspected hernia corresponds to urinary bladder.
- Marked urinary bladder distension with abundant intraluminal mineral sludge consistent with excessive calcium sediment accumulation.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The most significant finding on this examination is marked urinary bladder distension with abundant intraluminal mineral sludge. In rabbits, calcium carbonate sediment is physiologic; however, the volume of sediment described here is excessive and clinically relevant. Severe sludge accumulation can impair effective bladder emptying, promote urinary retention, and predispose to secondary cystitis even in the absence of mural thickening at the time of examination.

While definitive confirmation of true herniation cannot be established from the images available, the structure identified as herniated corresponds to the urinary bladder. If herniation is present, mechanical displacement may be contributing to incomplete voiding and chronic retention.

There is no evidence of upper urinary tract involvement. Both kidneys are normal in size and architecture, and there is no pyelectasis or hydronephrosis.

Given the history of dark brown urine, differential considerations include pigmenturia versus true hematuria; however, with the degree of sludge present, urinary stasis and mucosal irritation are plausible contributors to discoloration.

Recommendations

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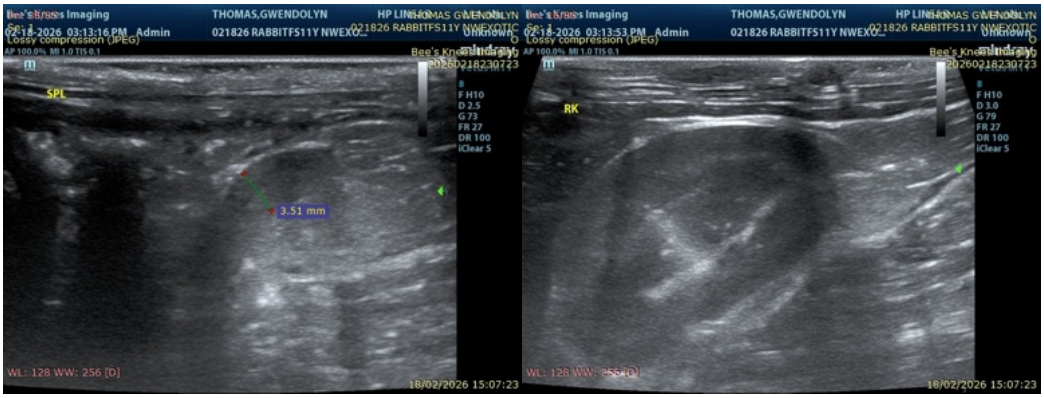
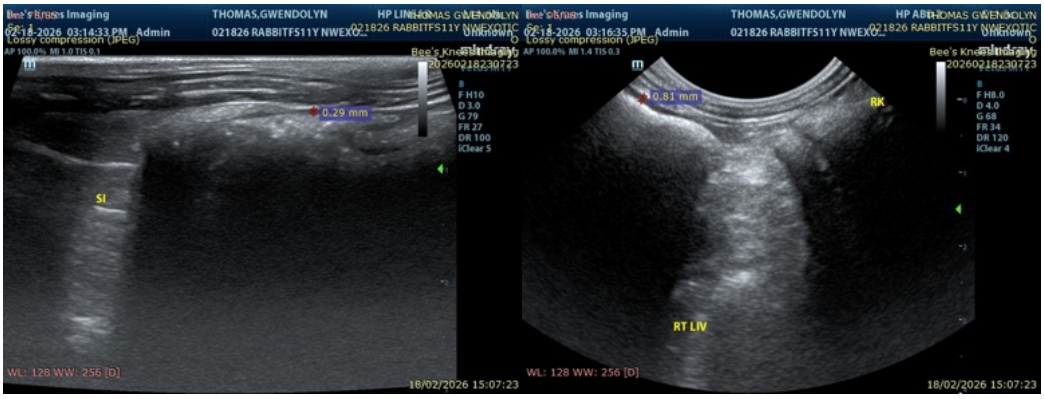
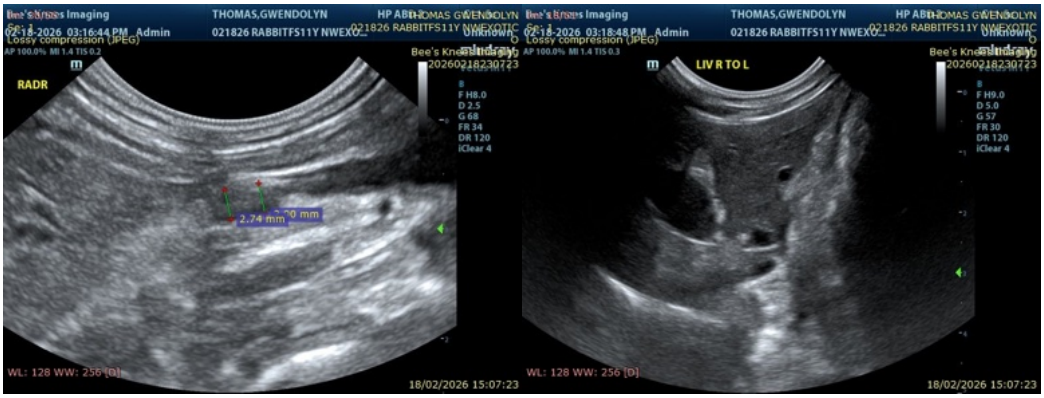
- If true herniation is confirmed and bladder emptying remains impaired, surgical consultation may be warranted depending on severity and clinical impact.
- Hydration support. Encourage increased water intake and consider fluid therapy if clinically indicated to reduce urine concentration and facilitate clearance of sediment.
- Dietary review. Evaluate calcium intake and ensure the diet is appropriate for an adult rabbit (avoid excessive alfalfa-based components unless medically indicated).







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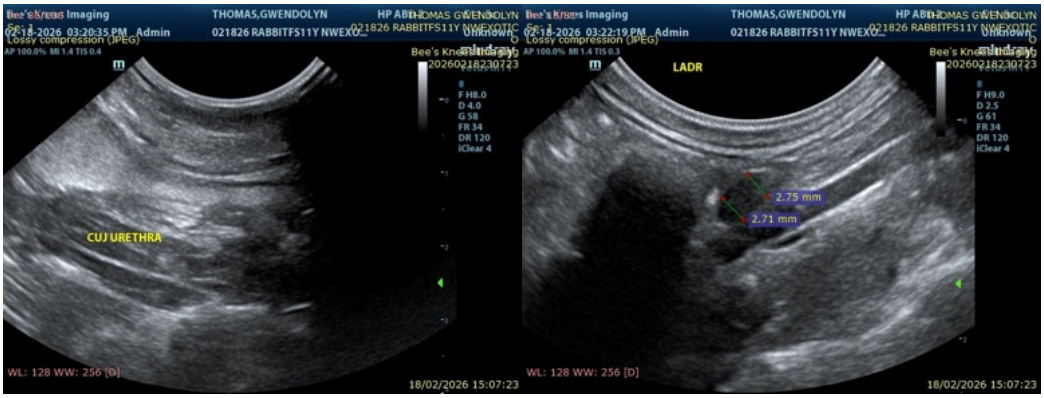

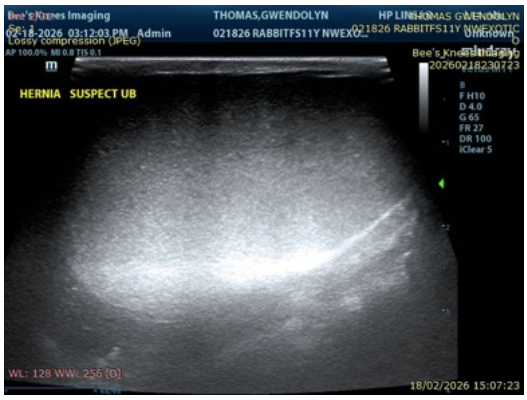

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Alicia Angosto Guerrero, DMV, PgDip, MSc.

MV Esp Ultrasound in Domestic and Wild Animals

info@SonoPath.com