

IT'S YOUR CASE

Species: Rabbit Breed: Domestic Sex: Male Entire Age: 2.5 years

Clinical History:

The rabbit is dehydrated, severely hypothermic and had generalised abdominal distension. Bloodwork shows a mildly elevated ALT

Anatomic regions: Whole Body

Details of study and technical comments: A whole-body CT study of the rabbit is available for interpretation. The study consists of pre-and postcontrast series processed with high and low-frequency reconstruction algorithms.

Diagnostic interpretation:

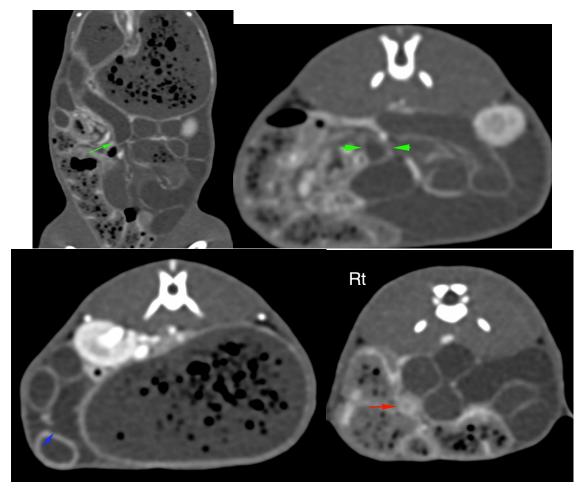
ABDOMEN

There is a small amount of fluid attenuating material in the peritoneum.

The stomach is mildly distended. It contains a small amount of gas, mixed gas and fluid attenuating material and fluid. The pylorus is in situ. Almost all segments of the small intestines are moderately dilated with fluid. In the mid-abdomen, to the right of the midline, there is an intestinal segment that tappers abruptly (green arrows). Small intestines aborally to this point, are difficult to follow, empty. Focally, the wall of the distended segment of the small intestine cannot be delineated (blue arrow). The sacculus rotundus is subjectively within normal limits (red arrows). The caecum is displaced caudally and to the right and contains a small amount of mixed gas and soft tissue opaque material. Few small mineral attenuating foci are seen in otherwise empty intestinal segments located medially to the caecum. The colon is empty.

The cranial mesenteric artery is traced towards the left of the abdomen, displaced by the dilated segments of intestine. There vessel and its branches arc laterally and ventrally before coursing rightward.





The liver is normal in size and shape and shows a homogeneous contrast enhancement. The gallbladder contains a small amount of bile. The spleen cannot be well delineated. The kidneys are unremarkable. The urinary bladder contains a small amount of fluid/soft tissue attenuating urine. The portal vein cranially to the right kidney is moderately dilated.

THORAX

The cardiac mediastinum is mildly shifted to the left, and the volume of the left lung at this level is reduced. The attenuation of the pulmonary parenchyma is unremarkable (magenta arrows). The cardiovascular structures are within normal limits. There are no signs of free gas or free fluid noted in the pleural space.



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HEAD

The nasal cavity is symmetrically gas-filled, with symmetric nasal turbinates. The external and middle ears are unremarkable.

The position of the globes is symmetric. The globes are normal in size and shape.

There is mild spike formation at the buccal aspect of the clinical crowns of the maxillary cheek teeth and at the lingual aspect of the mandibular cheek teeth.

There are no intracranial abnormalities noted.

MUSCULOSKELETAL

A small mineral attenuating body is noted at the cranial aspect of the left and right humeral head.

The L7 is transitional. The left transverse process is laterally angulated and articulates with the sacrum and ilium (magenta arrow).

Multiple gas attenuating foci and small amount of fluid that anointing material are noted in the subcutaneous tissues at the dorsal aspect of the thorax.



Conclusions:

- Ileus. Perforation of a wall of the small intestine is possible. Consider the potential for vascular compromise (i.e. intestinal torsion)
- Mild peritoneal effusion.
- Moderate segmental dilation of the portal vein. The clinical significance of this finding is unclear.
- Asymmetric transitional lumbosacral vertebra.
- Minimal abnormalities of the teeth.
- Small, mineralised bodies cranially to the humeri, it is incidental, most likely.
- Small amount of gas and fluid in the subcutaneous tissues at the dorsal aspect of the thorax are incidental, iatrogenic most likely.



Additional comments:

The findings of this study are concerning for an ileus. A luminal obstructive material to support mechanical ileus was not detected. Intestinal torsion cannot be ruled out. Intestinal adhesion and omental entrapment are considered unlikely causes for a mechanical ileus due to the normal position of the small intestines. Intestinal stricture is also considered unlikely as this is a chronic process. There are no overt signs of mesenteric volvulus. Paralytic ileus, such as due to severe enteritis, is possible. Focally the wall of the distended intestinal segment cannot be delineated; perforation of the small intestine and secondary septic abdomen are possible. There are no signs of free gas in the peritoneum to additionally support the intestinal perforation.

A sampling of the peritoneal effusion could be considered for further workup. Given its higher contrast resolution, abdominal ultrasound could be considered to assess the gastrointestinal tract in more detail.

There are no signs of liver lobe torsion.

Outcome:

The patient was taken to surgery and severe gastric dilation was identified. A segment of intestine was torsed with severe inflammation and ulceration however there was no evidence of perforation. Motility was observed following reduction of the torsion. The peritoneal fluid was noted to be tenacious.

Unfortunately, the patient did not recover from anaesthesia despite stable vitals throughout the generally uneventful procedure.

Literature:

Gleeson, M., Chen, S., Fabiani, M., Marino, A., & Antinoff, N. (2019). Mesenteric root and cecal torsion in a domestic rabbit (Oryctolagus cuniculus). *Journal of Exotic Pet Medicine*, 28, 76-81.

Maksimović, A., Spahija, N., Čamo, D., & Lutvikadić, I. (2020). A unique case of spontaneous intestinal volvulus in a pet rabbit. *Veterinaria*, 69(1).

