



DIAGNOSTIC IMAGING REPORT

Facility		Modality	Computed Tomography
Referring Doctor		Study	Whole Body
Animal ID		Date of Study	
Signalment		Date of Report	

History

Technique

Computed tomographic imaging was performed in ventral recumbency under anesthesia at

Non-contrast axial 1.25-2.5mm images of the animal including the caudal cervical region and entire coelom (~80cm length) are available in bone, soft tissue, and lung reconstruction algorithms. Post-contrast soft tissue series were obtained at 80 seconds and 8 minutes post-injection. The image quality of the study is excellent. No motion artifact is appreciated. Three ECG leads are in place during image acquisition and result in streaking artifact.

Findings

There are four large gastroliths (up to 3.3cm in length) clustered within the dependent lumen of the ventriculus, coupled with a small amount of stippled mineral debris and a moderate amount of fluid (cross-sectional measurement of ventriculus is 10 x 11cm). With the patient in ventral recumbency, the gastroliths lie ~5-6cm ventral and to the left of the ventriculo-duodenal junction; there is no evidence of static outflow obstruction. The ventriculus is 8mm-1.2cm thick. The proventriculus appears asymmetrically thicker on the right side (1.7cm vs. 9mm on the left). These GI wall measurements are performed in the post-contrast images to measure only enhancing wall rather than luminal contents. Proventricular papillae are not appreciated in this study. The proximal duodenum measures 1.6cm in diameter, is segmentally fluid dilated (2.7-4cm) for a length of 18-20cm, then tapers to a normal empty lumen with a 1.5cm diameter. No obstruction or foreign material is seen within the bowel.

The cervical vertebrae, thoracic vertebrae, synsacrum, ribs, and femurs are pneumatized; assessment of these skeletal structures is optimized in a lung window (rather than a typical bone window). Evaluation of the remaining osseous structures in a bone window reveals an ill-defined focus of marked sclerosis (2.0 x 2.8 x 1.9cm area) within the medial aspect of the proximal articular surface of the left tibiotarsus. The lesion does not enhance at either 80s or 8m post-con.

The lung parenchyma, cardiovascular structures, esophagus, gallbladder, kidneys (3.1cm height in cross-section; homogeneously enhance in the nephrogram phase 80s post-), ureters and urodeum (contain contrast in excretory phase at 8min post), symmetrical testes (3.6cm height in cross-section), spleen (ovoid with 3.1cm height in short axis), intestine, air sacs, and coelom are normal. The large (1.6cm diameter) asymmetrical right-sided vein seen emerging from the cervical vertebral canal (image 93/661 in the "STD 1.25 WITH" series) and coursing ventrally terminating in the right axillary vein is likely the azygous. There is heterogeneous contrast filling within several veins in both post-contrast series, however this appears much more consistent with inhomogeneous mixing than with luminal defects (thrombi). The paired ceca are not clearly identified.

Impressions

1. Gastroliths (ventriculus). No evidence of ventriculus outflow obstruction or of lithiasis within other segments of the gastrointestinal tract. Asymmetrical proventricular wall thickness as described is of unknown clinical significance.
2. Focal marked sclerosis, left tibiotarsus. Differentials include bone infarct, trauma, osteomyelitis, or much less likely early neoplasm.

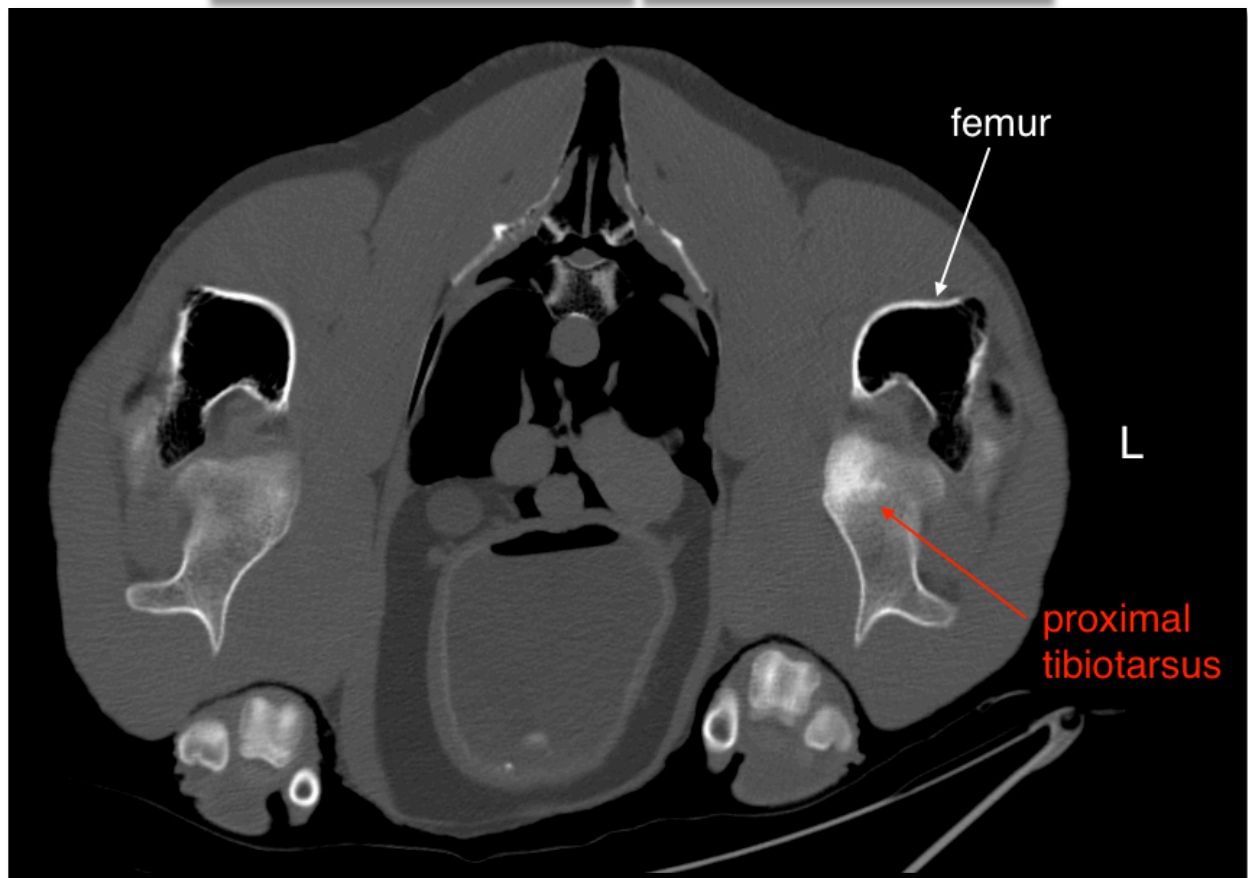
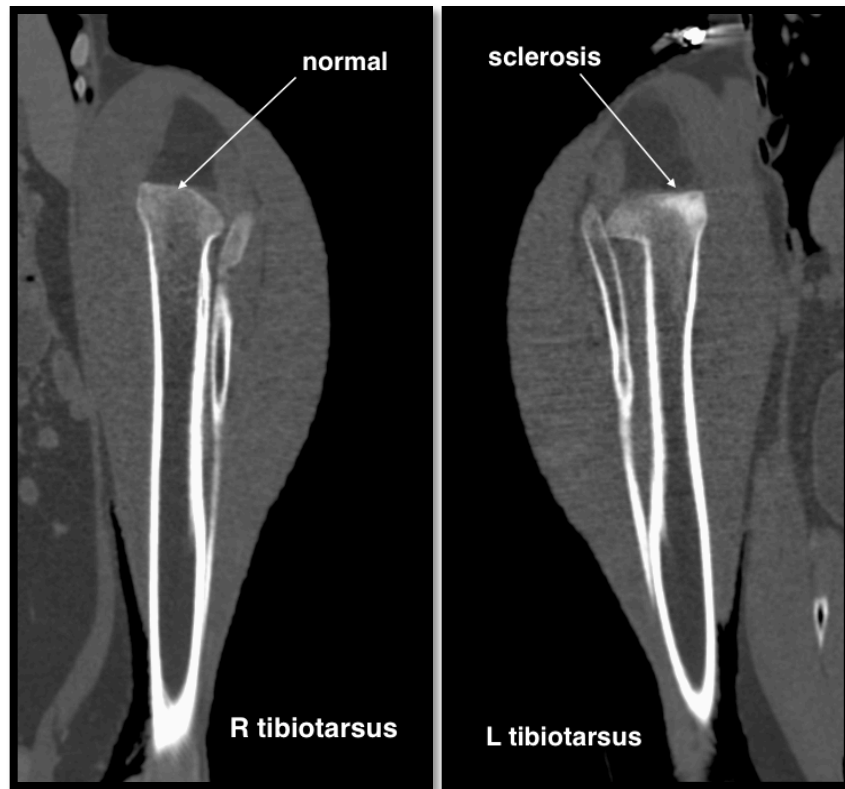
Recommendations

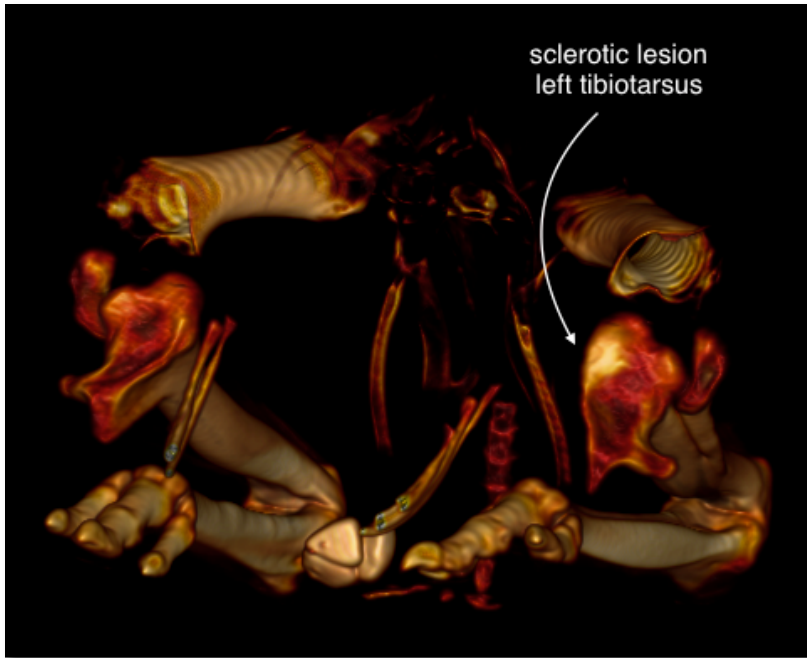
- Sampling of the proximal left tibiotarsal lesion, if appropriate (bone FNA or bx); recommend craniomedial approach. Alternatively, the lesion could be reassessed with CT and/or radiographs of the tibiotarsi. Nuclear (bone) scintigraphy could also be considered to gain functional information with regards to this lesion (i.e. activity).
- Consultation with anesthesiologists Dr. Sathya Chinnadurai and Dr. Julie Balko at Brookfield Zoo regarding analgesic alternatives and further management of this animal's left pelvic limb pain/lameness could be considered.
- In future scans, recommend removing the ECG leads after the scout is obtained but prior to acquisition of series images.

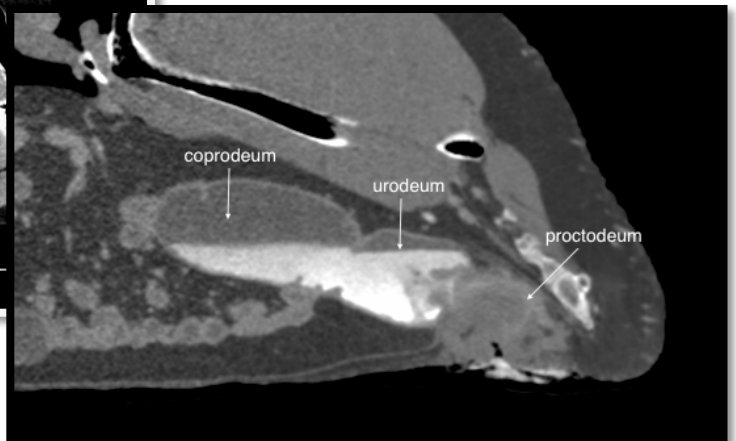
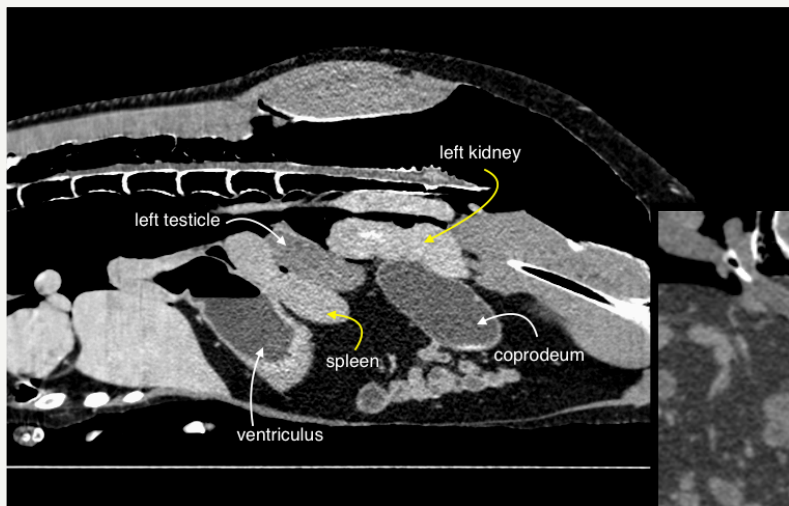
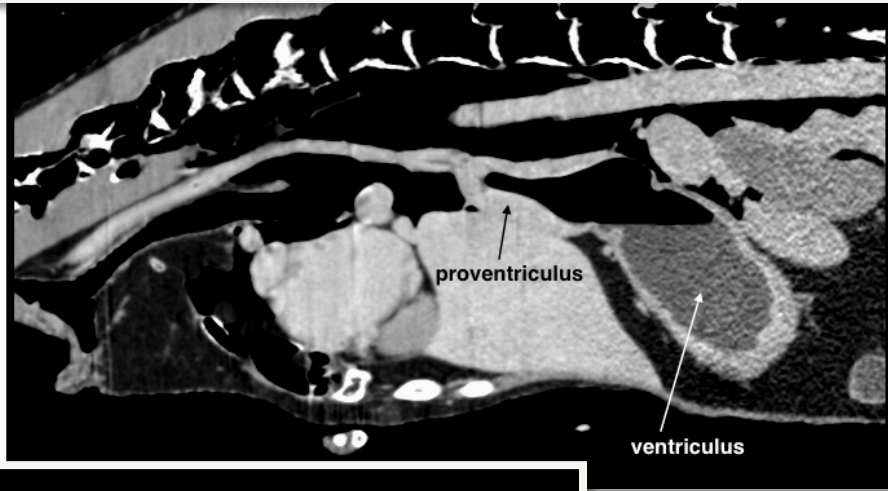


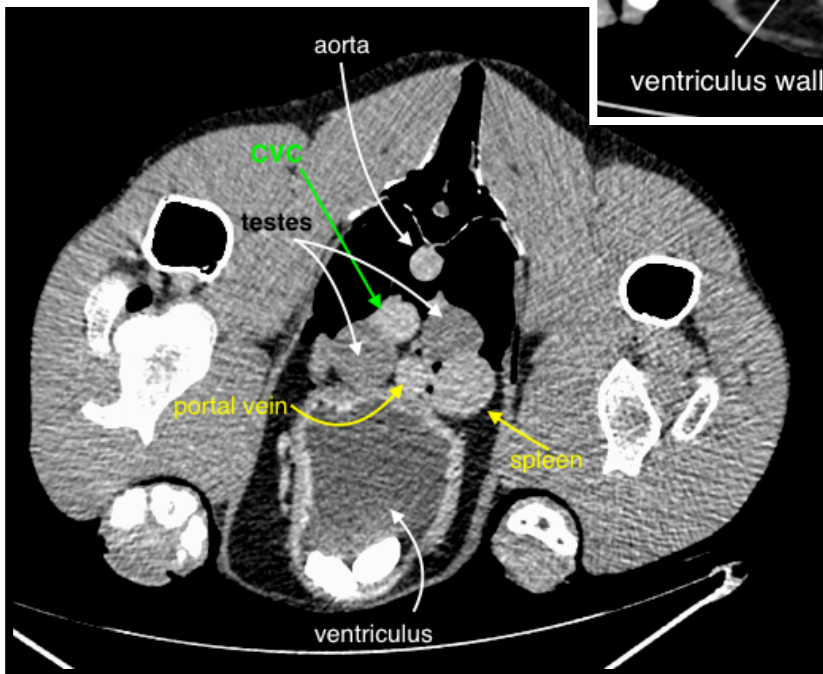
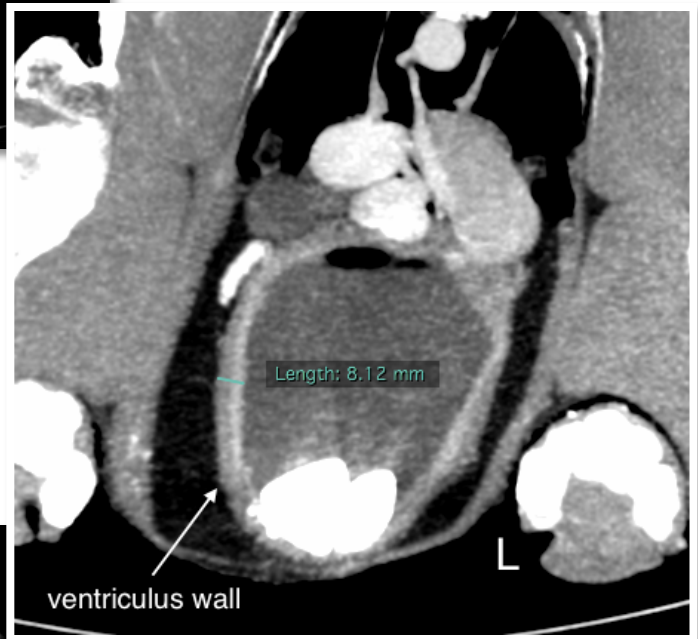
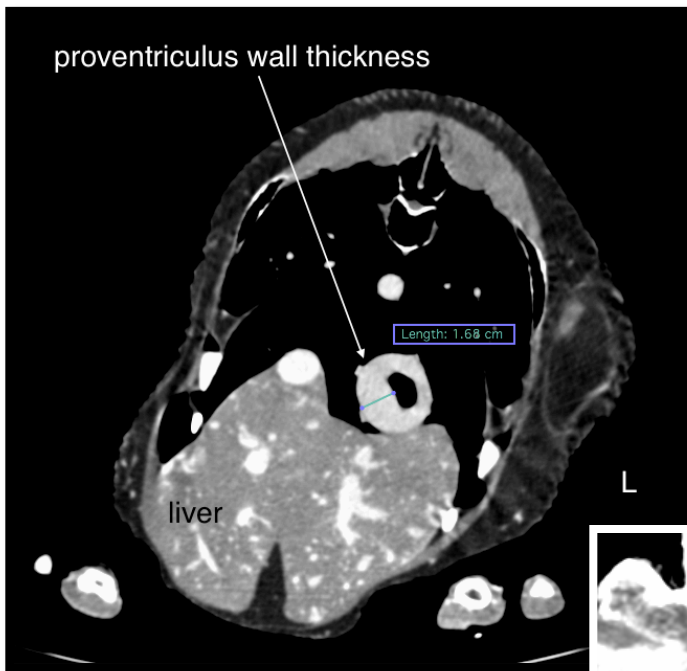
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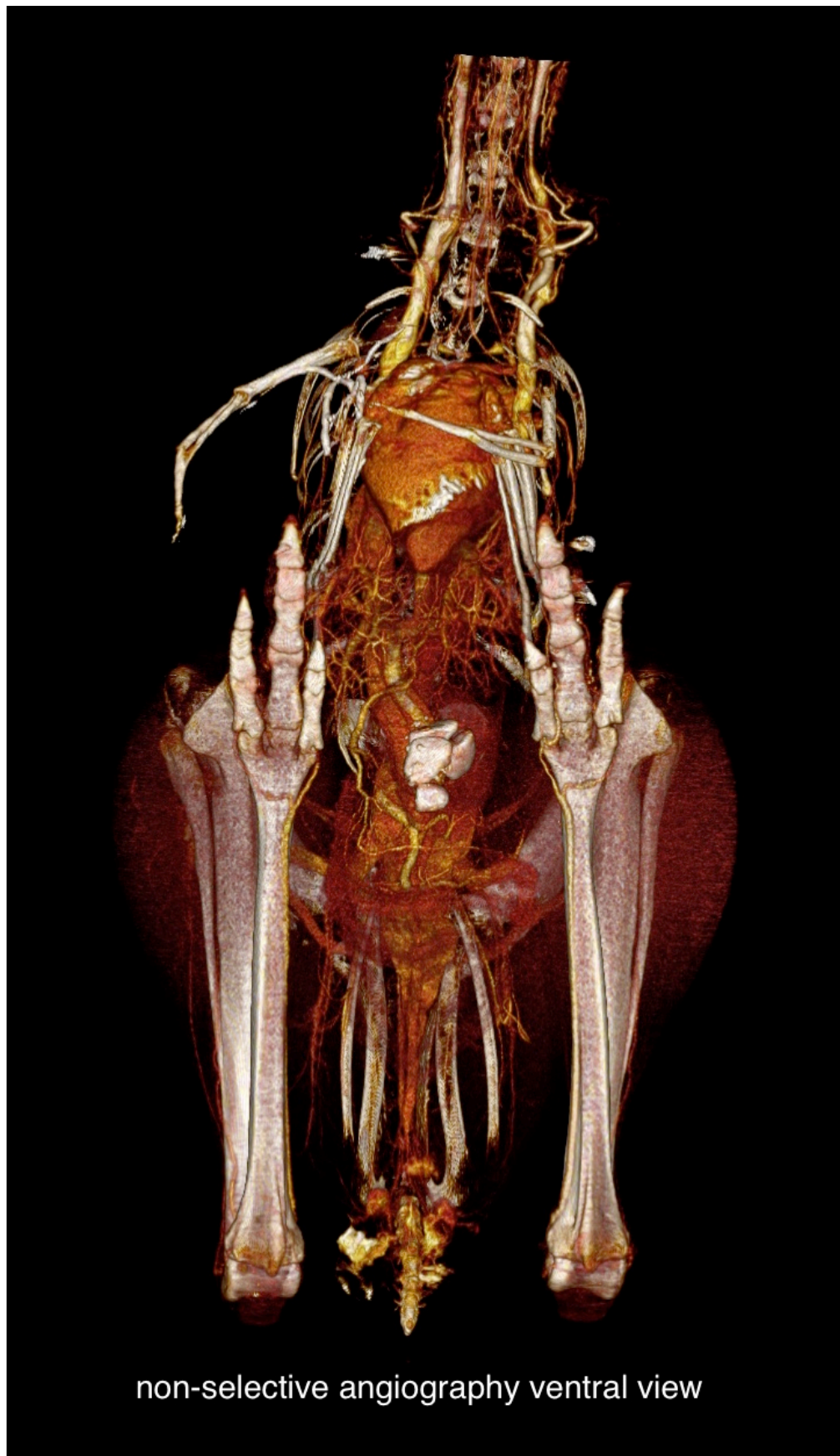
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