Chicago Zoological Society **RADIOLOGY** CONSULTING SERVICE

Chicago Zoological Society

Green Sea Turtle

RADIOLOGY REPORT

Patient Information

Patient:		Patient ID:		Report Number:	28817
Patient Birth Date:		Age:		Gender:	0
Study Description:	Full body CT	Accession:		Study Date:	20201016
Species:	Exotics	Breed:	Turtle	Modalities:	СТ
Sedation Used:	No	Anesthesia Used:	No	Submitted By:	
Facility:		Submitted:	2020-12-18 16:02:39 UTC	Finalized:	2020-12-19 20:20:27 UTC

Annotated Images Requested: Yes

STAT Request: 0

Anatomical Region: Whole body

History

Would like more information on trauma from historical boat strike, any evidence of liver disease (i.e. fatty liver, neoplasia etc.), official sex of this animal

This animal was brought to from a rescue in the sustaining a boat strike. Since arrival, this animal has had buoyancy issues ("bubble butt"), which requires weights on this animal's shell to help counteract the issues. This animal also has significant hindlimb paresis. This animal is obese and has a chronically severely elevated AST. It has been on supplements of Omega-3s and milk thistle for the past 6 months, with significant improvements seen in AST levels.

Please include PO number on invoice of:

Findings

Computed tomography of the patient was obtained in sternal recumbency and is available for review in DICOM format of patient ID 10693. Series obtained include transverse soft tissue (smooth reconstruction kernel) and bone/lung (sharp reconstruction kernel) algorithm images using 0.9 mm and 2.0 mm slice thicknesses.

Total images: 2634 Body parts evaluated: Patient Physical length of study: 81.7

The cervical vertebral are appropriately aligned. The cranial subcarapacial vertebral bodies are appropriately aligned; however, near the caudal curvature of the carapace and spine there are large defects of the carapace with deformation and destruction vertebral bodies. The margins of the vertebral pathology is smooth and rounded with relatively homogeneous bone. The deformation of the caudal vertebral segment results in tapering and stenosis of the spinal canal with effacement of the spinal cord. Caudal to the deformation the spinal canal is normal with normal spinal cord silhouette. The thoracic girdle comprised of the clavicles, coracoids, scapulae, and humeral heads is unremarkable. The humeral diaphyses are unremarkable. The elbow joints are congruent with smooth periarticular structures. The pelvic girdle; including the sacroiliac articulations, acetabula, and femoral diaphyses are unremarkable. The tibial and fibular diaphyses are unremarkable. The tarsal bones, metatarsal bones, and phalanges are unremarkable. No metal transponder. There is a full thickness defect of the caudal carapace that results in heterogeneous, sclerotic bone and an indentation that extends deep to the vertebral bodies. There is mild soft tissue along the interior margin of the abnormal carapace. The full thickness defects are located both centrally to the left of midline and peripherally along the right side. The plastron is unremarkable.

The trachea is unremarkable with smooth mucosal margins. The principal bronchi is unremarkable with smooth lining of the airway walls. There is appropriate aeration of the pulmonary parenchyma; however, the caudal aspect of the lungs are rounded and blunted - this is in the region of the carapace defects and indentation. There is a discrete distinction of the left pulmonary interstitium and the vascular structures. The thyroid gland is soft tissue attenuating

and isoattenuating to the surrounding tissues. The cardiac margins are smooth. The hepatic parenchyma is hypoattenuating compared to the vasculature. The gallbladder is homogeneous. The spleen is smoothly marginated and homogeneous. The esophagus contains a small amount of gas; the luminal gas outlines esophageal papillae. The stomach is relatively empty. The small intestine is uniform for size and within normal limits for size and content. The colon contains heterogeneous soft tissue with punctate mineral foci. The renal parenchyma is symmetric and homogeneous. The urinary bladder contains hypoattenuating soft tissue - the wall is thin and unremarkable. Cranial to the renal parenchyma, there are paired oblong hypoattenuating structures representing the gonads. There is nothing to differentiate testes from ovaries. There are no follicles.

Impressions

- 1. Chronic fractures of the caudal carapace and caudal subcarapacial vertebrae resulting in full thickness defects of the shell and vertebral canal stenosis. The midline defects are left-sided; the peripheral defects are on the right side. Osteomyelitis is unlikely.
- 2. Focal fibrosis of the coelomic cavity along the interior margin of the carapace defects. There is no pneumocoelom or coelomic effusion.
- 3. Hepatic lipidosis; likely metabolic dysregulation or negative energy balance.
- 4. Hypoinflation of the caudal lungs; this is likely related to the previous carapace trauma. The indentation of the carapace restricts the space for lungs. The lung parenchyma is otherwise unremarkable no pneumonia.
- 5. Hypoattenuating thyroid tissue may be an individual variant, variation of the circadian rhythm, or indication of thyroid dysregulation. This is a non-specific finding and should be correlated to clinical picture.
- 6. Unremarkable thoracic girdles and proximal thoracic limbs.
- 7. Unremarkable pelvic girdle and pelvic limbs.
- 8. No sign of intestinal ileus. There are small, non-obstructive intestinal mineral bodies.
- 9. Sex is undetermined based on the internal anatomy. There is no follicular development. Based on the shape and size of the tail, as well as the lack of follicles, prioritization of male over female.

Recommendations

Buoyancy problems may be related to the altered shape of the lungs related to the carapacial defect/indentation and/or the neurologic pathology. There is no intestinal ileus related to the neurology pathology.

Report on 2020-12-19 20:20:27 UTC signed by:

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The findings, impressions, and recommendations listed are based on the history and clinical information provided. Interpretation should be performed by a licensed veterinarian serving as the primary clinician for the animal. Images in this report may not be reproduced without permission of the Brookfield Zoo/Chicago Zoological Society.

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