

CT Report

Patient: Female ORCA L-112 **Date of Exam:** 02/23/2012 **Referring doctor:** Whale Museum
Date dictated: 02/29/2012
Study: Majority of the head.

*****Due to patient size and shape, several series of scans were obtained focusing on certain anatomical areas. The entire head could not be included on one scan, and some of the soft tissues are outside of the field of view. Some of the scans are quite rotated as a preliminary scan was done to assess if the plastic coating would at all interfere with the image (which it didn't). There are several scans that are quite straight but this sequence of scans could not include the caudal ventral most aspect of the skull due to patient size restriction. Keep in mind that the scans with the head rotated will distort the image.

NOTE: The patient was lying on her side with the left side down, blowhole facing the workstation for CT, mandible facing away from the workstation and right side up, nose to window. A=left side. P=right side.

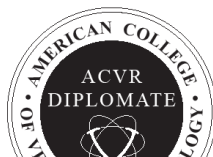
CT Findings: This patient is positioned with the left side down and the right side up.
On the scan window overlay, A= Left and P=Right.

There is extensive gas accumulation in the soft tissues and fat throughout the head Including intracranially (the head has been disarticulated for imaging).

There is loss of brain matter. The right side of the calvarium is almost completely devoid of brain tissue- the majority of the right side of the brain is missing including the right cerebral hemisphere and the right side of the cerebellum. Soft-tissue attenuating striations suspended within the calvarium are suggestive of residual meninges on the right. Brain tissue is present on the left side.

On the sequences with the head positioned as straight as possible, no asymmetry to the large included bones of the skull is noted. No large displaced fractures of the calvarium are seen. There are a few small, smoothly marginated mineral attenuating densities (small bones and/or otoliths and/or dystrophic mineralization) and also somewhat thin linear area of mineralization at the level of, but separate from, the osseous bulla. Most of these structures are dorsal to the bulla. Some of these are quite small and are present bilateral, but are asymmetric. There is displacement of some of these very small mineralized bodies on the right side through the calvarial foramina. Image 1. This is interpreted with caution because in this area, especially on the right side, there is loss of normal soft tissue structures (brain, fat etc) that may previously have held these in place outside of the calvarium. The peribullous sinus contains a mixture of air and soft tissue attenuating material bilaterally.

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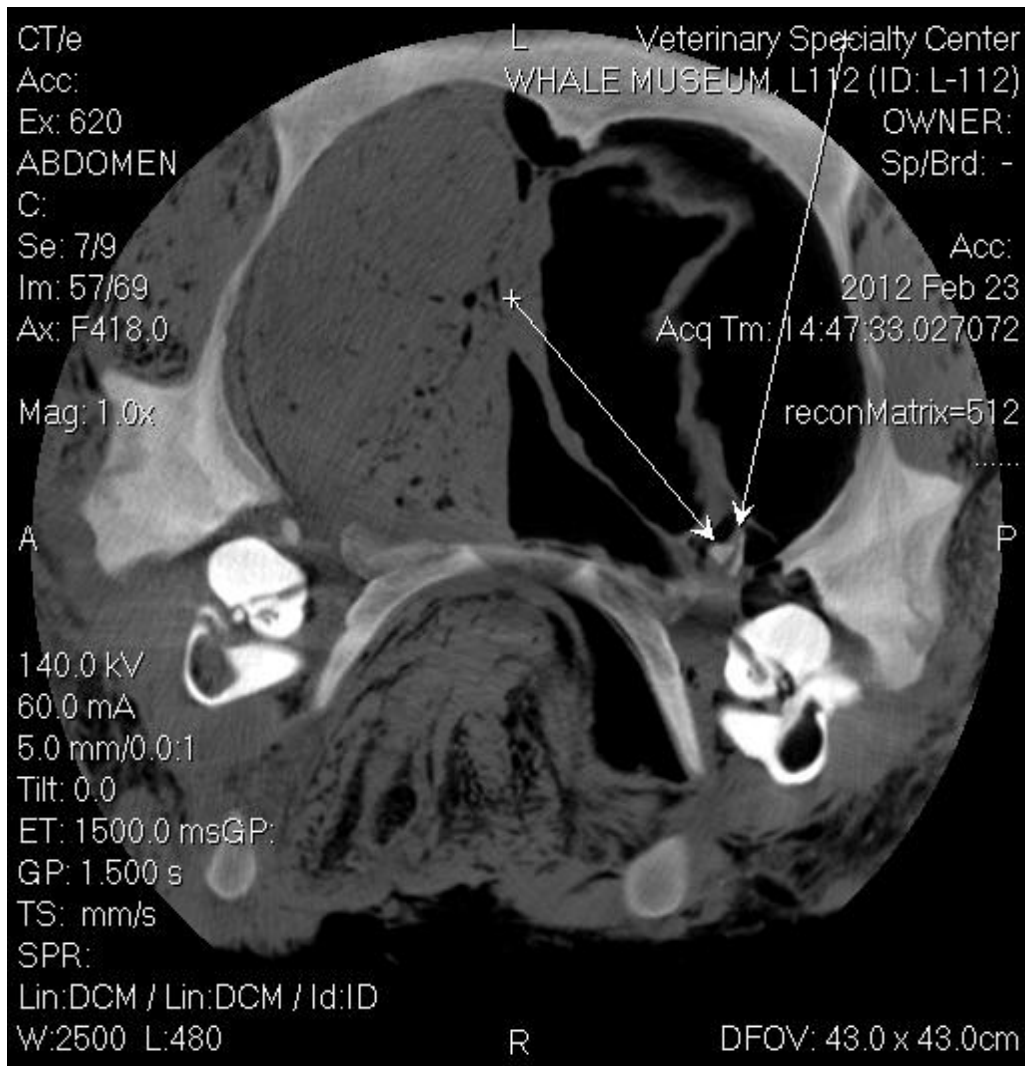
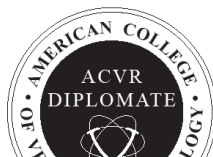


Image 1- small mineral attenuating structures displaced into calvarium on the right side. The side with the missing brain matter.

There is accumulation of soft tissue or fluid attenuating material and gas in the pterygoid sinuses with the left side having more soft-tissue or fluid-attenuating material than the right.

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There is soft-tissue or fluid-attenuating material in the majority of the left osseous bulla. There is soft-tissue or fluid-attenuating material and air in the rostral aspect of the right osseous bulla with air in the mid to caudal right osseous bulla. The right bulla has more air in it than the left. The left is almost completely filled with fluid and/or soft tissue. Considerations for this fluids/soft tissue attenuating material are blood, infectious or inflammatory debris, polyp like material-chronic inflammation or parasites and/or post-mortem accumulation of fluid or engorged mucous membranes. See image 2 and 3. The tympano-periotic complexes are intact bilaterally. The auditory ossicles cannot be fully evaluated due to limitations of resolution.

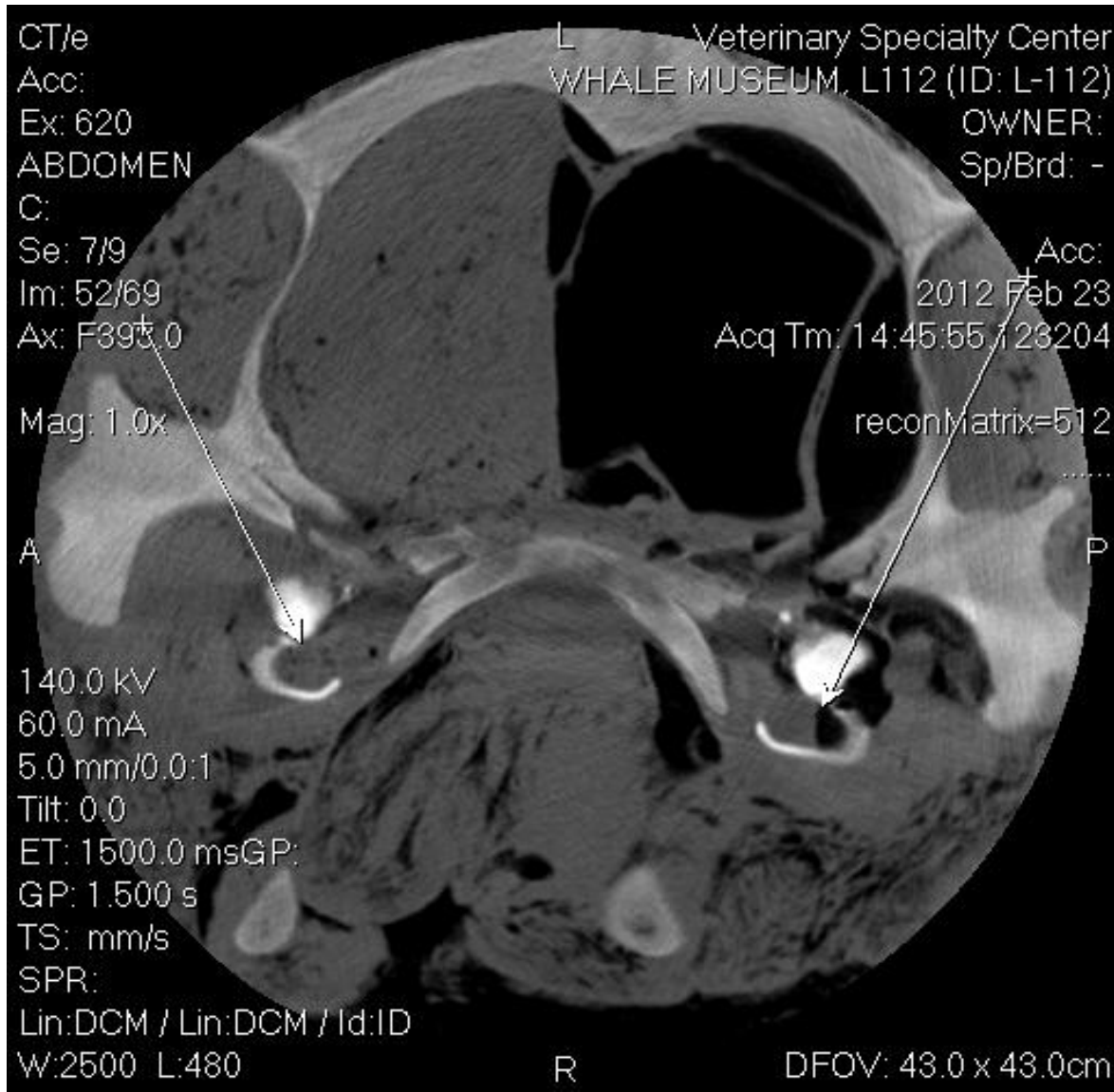
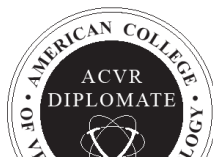


Image 2. The more rostral aspect of the osseous bulla. Arrows pointing to bulla. Fluid or soft tissue attenuating material occluding the left osseous bulla and air and fluid/soft tissue attenuating material in the right.



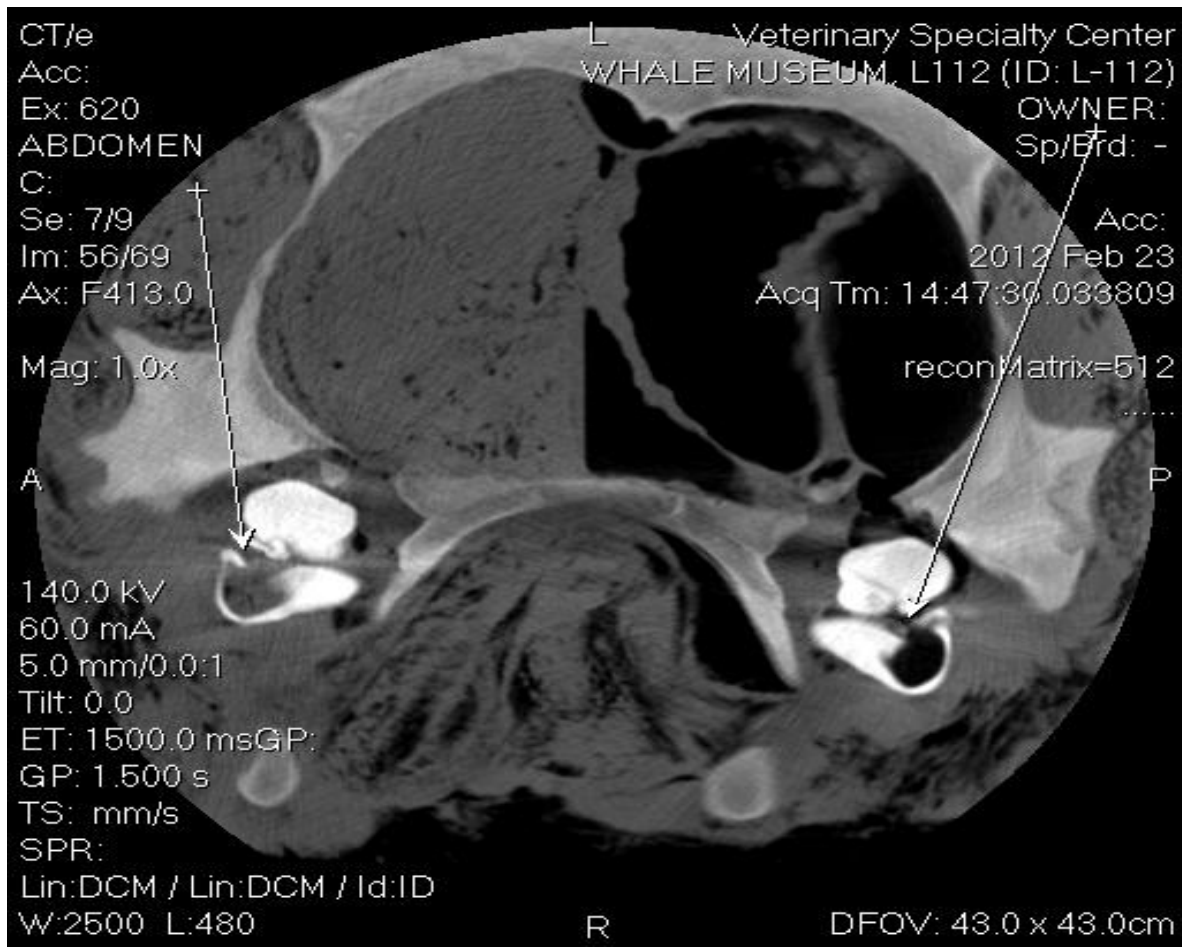


Image 3. Caudal aspect of the bulla. Fluid or soft tissue in left osseous bulla. Air in the right.

CT summary:

- Extensive gas accumulation in the soft tissues and fat. Disarticulation prevents further comment.
- Absence of right cerebral hemisphere and right cerebellum of the brain secondary to loss of tissue during disarticulation. Significance is uncertain based on imaging alone but is an atypical observation.
- Bilateral small mineral (i.e. bone) attenuating structures dorsal to the bulla (Ddx: otoliths, dystrophic mineralization, parasitic granulomas) with right-sided displacement through the foramina into the calvarium due to loss of supporting tissues (presumptive).
- Sinusitis, likely parasitic.
- Fluid and/or soft tissue in both osseous bullae (middle ears) worse on the left. Possibilities include: blood, infectious or inflammatory debris, polyp like material and chronic inflammation, parasites (including worms) and/or post mortem accumulation of fluid or engorged mucous membranes.

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