

Rounds

Animal Health
Department
Medical Rounds

"medicine for all"



NATIONAL
MARINE
L I F E
CENTER
Caring for Stranded Marine Animals

Notes

Veterinary Research
Department
Under the microscope

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Rounds Notes is a report on the health of animals at the National Marine Life Center from Sea Rogers Williams VMD for the staff, volunteers, and community of the center including professionals involved the captive care of similar species, the views expressed are not necessarily that of NMLC. Information in Rounds Notes should be considered confidential and used solely to benefit the health of aquatic animals everywhere.

Jan 10, 2013

Rounds Notes

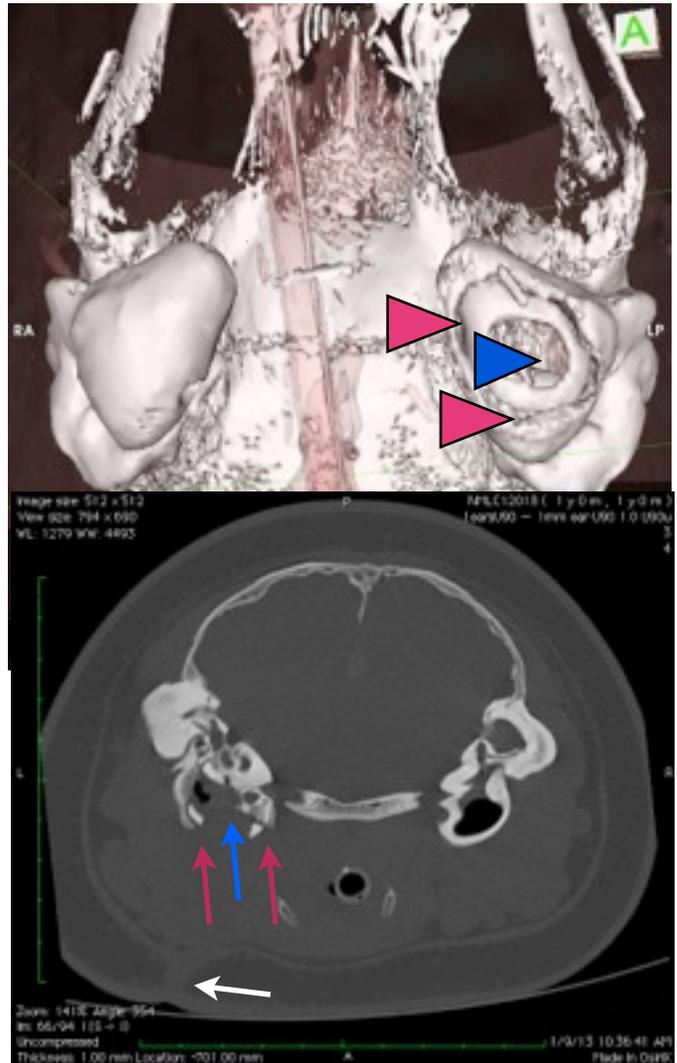
2: 6-9 (2013)

Headlines News: Going to Townsend Hold on to your hats, this gets a little complicated.

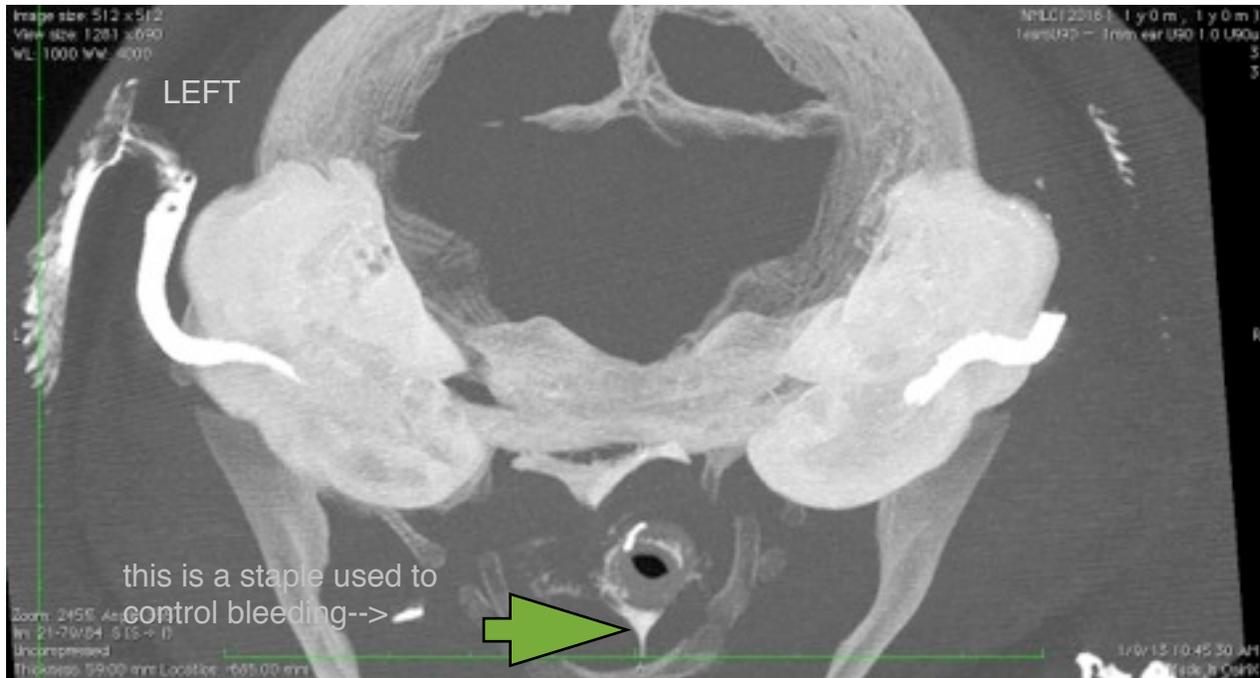
Townsend's incision stopped draining and healed, for 1 week we saw no external discharge from the ear, so we stopped topical (in the ear canal) and systemic antibiotics. Wednesday we anesthetized Townsend for a CT exam at WHOI CSI with Dr. Ketten, Julie and Scott, to see what was going on. We were disappointed to see a thin tan discharge from the LEFT ear once we moved Townsend to WHOI.

Anesthesia went well [preop: glycopyrrolate 4cc IM, midazolam 1cc IM; induction with 10cc propofol IV (dorsal sinus), intubation and PPV with 100% oxygen via an ambu bag (no anesthesia machine in Woods Hole), and extended the anesthesia with a bolus of 5cc propofol; recovery within 10 min of finishing the scans]

Two scans were performed: The first shows fluid and thicker fluid in the middle ear, a concentric fracture of the LEFT bulla (RED arrow) and the osteotomy site (BLUE arrow) and the drainage tract (WHITE arrow). What must of happened during surgery is the pressure and vibration of the burr caused the ventral surface of the dome of the bulla to fracture and slightly depress. Since the bulla was full of material, and the fracture line was outside of the field of vision of the approach, we were not aware of the fracture at the time of surgery. The fracture in and of its self is not a major



complication but may have caused a “false ceiling” effect and allow scraps of mucoperiosteum to hide in the crevice which seeded the middle ear with bacteria and infection to continue post operatively. But the infection was given a means of drainage, which is the whole purpose of the surgery to being with, so healing may only be delayed. In fact, the density of the bone appears better the pre-operative scan, and advanced osteomyelitis is not evidence on this study. We went back to the pre-surgical exam and under high magnification we did detect some weakness in the bone of the bulla that might have explained why the fracture occurred. I can't show this in Rounds Notes, and these are very subtle lesions on a medical grade Simmons high resolution monitor, not something that would show up here, no wonder we missed it the first time round.



The second scan was performed with contrast material [hupaque 3cc into each external ear canal- note for future exams, some “blooming” artifact was seen and the dye should be diluted 1:2 to 1:3 in the future]. The Right ear is normal in all structures, but the left ear drum is perforated by the evidence of the contrast material found around the endotrachial tube (GREEN arrow) as seen in the MIP-max projection above, note the normal right ear and the ‘hard stop’ of the dye at the TM) However, the dye did get ‘caught up’ at the level of the left tympanic membrane, so it is very possible that the ear drum may be healing or partially intact, we just don’t know.

Since Townsend has been, let us say difficult to treat, we are looking into a long acting infusion for the ear and some additional healing time is needed. So, kind of a mixed bag, and if anything I think the fracture shows that surgery was delayed too long, which fits into my theory that if we really want to heal these seals with otitis media, we should move towards surgery quickly and early, avoiding the medical management that in our hands is so unsuccessful in resolving the infection.



Clinical Update: So long, and thanks for all the fish Hotlips release approved.

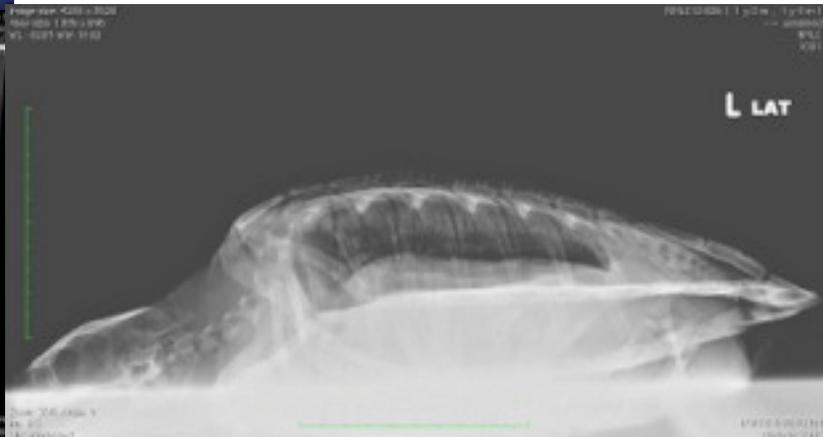
All healed up and she has places to go. NOAA approved the release of Hotlips and she passed here final physical, so good luck, god-speed, and don't forget to simile. We're pleased to have our first release and successful rehabilitation of a seal under our sub-letter agreement with UNE. Just remember what she use to look like.



Sea Turtles:

Going digital . . .

We started radiographic monitoring of the Kemps' with our new digital computed radiographic plates, thanks to a generous grant. While we still are looking for funding for an in-house processor, I can lug the plate to my clinic for development, and we could use the film processor in an emergency. The effort is worth it, the radiographs were of excellent quality, and ideal for monitoring the fine detail of the osteolytic lesions seen in the flipper tips of the these frost-bitten Kemps'. So far the lesions are minor, involve the distal phlanges and appear to be healing.



Terrapins, Cooters, and Turtles, oh my . . . : shell shocked

Lucky "13" shell appears to be healing well with our standard shell cleaning protocol, we'll continue for another week. They are all growing and on-track for release.

Some Pictures of Townsend getting scanned.



during the scan

Earnst's Right Front Flipper:



and after, Kate rushes in to look after Townsend

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