

Rounds

Animal Health
Department

Medical Rounds

"medicine for all"



Caring for Stranded Marine Animals

NATIONAL
MARINE
LIFE
CENTER

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.

January 5, 2010

Rounds Notes

1: 1-3(2010)

Headlines News: Patty loses more scutes

pseudo shell looms underneath but harbors superficial bacteria

Patty's weight is stable and she continues to eat well, but her episode of severe carapace disease continues. The dermal bone scutes with overlaying epidermis has died.

Histopathology confirms avascular necrosis and is consistent with thermal damage done by the freezing temperatures that she was exposed too last March. Interesting that the changes became apparent only after she was warmed up and safely tucked into rehabilitation, but delayed reaction in bone to cold thermal insult have been documented in humans. The "suture" line apposition of the dermal scutes lacks the strength and integrity to hold together when deprived of blood flow and the scutes are coming off with just a little wiggle. A layer of fibrous connective tissue that is hopefully capable of forming new bone, called the pseudo shell is present underneath the dead bone and is white or pink, and smooth and proliferative in places. This junction is exposed to the environment, and a smattering of bacterial contaminants were cultured:

Morganella morganii - 2+

Ochrobacterium anthropi - 2+

Pseudomonas species - 2+

All were sensitive to the quinilone family so we discontinued the ampicillin and started enrofloxacin [compounded Baytril to 13 mg/ml, 5 mg/kg PO (via gavage tube) q5day, indefinitely].

While I'm not sure where this is going, we continue to support Patty and monitor her quality of life and hold on to the hope of a recovery that would still allow wild release. While a new shell may form, it may take years and not be "normal" but turtles generally have the time and if the new shell is functional wild release has not been taken





off the table. I am very cognizant that sepsis and other life threatening complications lurk just around the corner and we are taking the case week to week.

A protocol for the administration of the oral medication is attached. And I thought only Cecil Turtle could remove his shell.

Clinical Update: Diamondbacks **the little terrapins bring the largest worry**

#8 continues to be our smallest terrapin, and at 4g there is not much too the little turtle, but he merits a large portion of our attention. While we have seen him eat a little, he's a shy one so don't hover over him, we had not identified fecal matter as of last week. After a normal inspection a drop of saline was administered into the cloaca to get things going as it were and soon afterwards he produced the needed material, hey, everyone poops. He is not the strongest turtle but does demonstrate an appropriate righting reflex but is sometimes slow to wake up in the mornings even at a nice and toasty 75°F tank. We continue to monitor little #8 closely.

Terrapin Oral Gavage Protocol: stainless steel applicator

- 1) prepare all needed material
 - 1) appropriate sized gavage tube CLEAN (or sterile if used between animals)
 - 2) medications and saline or water to flush tube
 - 3) water based lubricant
 - 4) mouth speculum
- 2) hold the terrapin up right and measure and mark tube to 1/3-1/2 plaston
- 3) open mouth to insert oral steel gavage tube (lubricated)
- 4) once the tube is advanced pass the glottis, visual inspect to make sure the airway is clear and NOT intubated
- 5) advance to the mark or if resistance is felt



- 6) administer the medication, followed by enough water or saline to fully administer the medications
- 7) remove tube
- 8) hold terrapin upright for several minutes
- 9) vigorously flush the inside of the applicator with soap or chlorohexidine, place in chlorohexidine solution for holding between use (sterilize between animals)
- 10) note medication, success or lack there of, in medical record
- 11) if any problems are encountered call the veterinarian

Clinical Update: Red-bellied Cooters **slow and steady growth is the key**

The Red-bellied cooters are doing fine and eating and growing.

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CT 3D reconstruction of Patty the Diamondback terrapin

