



Rounds Notes is a monthly report from Sea Rogers Williams VMD, the views expressed are not necessarily that of the National Marine Life Center. Information in Rounds Notes should be considered confidential and used solely to benefit the health of aquatic animals everywhere.

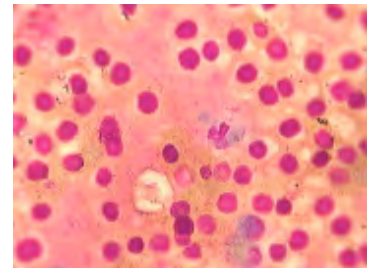
May 21, 2009

Rounds Notes 9: 24-25 (2009)

Headlines News: Too much too soon?, Too little too late?

WARNING: CONTAINS PICTURES FROM THE POST-MORTEM EXAM

Amelia was clearly doing less well at Rounds on Tuesday, she was less active and the fracture was bleeding with more vital reaction near the site. I found her on her side, stuck in her cage between the side of the tank and the artificial rock-work this morning. A strong little terrapin would not have gotten herself into such a predicament. A culture was taken from the wound and cytology found intracellular bacteria indicating an infection of the fracture. She also appeared to be dehydrated. We started Amelia on an treatment regime which included meloxican [diluted 1:1000 @ 0.1 mg/kg PO q 3 d], fluids [LRS 0.1cc SQ SID], ampicillin [50 mg/kg IM SID], with enrofloxacin [diluted 1:10 @ 5 mg/kg IM q 5 d]. We also started a tube feeding [0.2cc of dilute Reptomin® gruel] via gavage. Unfortunately, several hours after the last treatment, Amelia was found lifeless in her cage.



And so, we are sadden to report the loss of Amelia.

A necropsy revealed that the fracture did communicate with the body cavity and fluid from the body cavity was septic. Once the shell fragments were removed the extent of the original wound was reveled and it was substantial. Other findings included: a patent but distended gall bladder (anorexia), testis (making Amelia really an Amelio), little body fat, and an empty GI. The lungs were clear of fluid and there was no sign of pneumonia. Tissues were collected for histopathology and will be sent to Northwest Zoo Path for further evaluation. Culture results found heavy growth of *E. coli* (this can come from us, we wash our hands before and after handling turtles to prevent spread either way), *Pseudomonas aeruginosa* (a water associated pathogen), and *Streptococcus uberis*. Our combination of ampicillin and enrofloxacin would not have been uniformly successful as one of the isolates of *Pseudomonas* was resistant to penicillins and intermediate to enrofloxacin. A combination of amikacin and ampicillin would have been effective but this therapy is not without risks, with ampicillin and ceftazidime as the next best choice.



The cause of death is likely one of the following: hypoglycemia, systemic inflammatory reaction (sepsis), fatal arrhythmia, or a drug interaction. None of the medications given to Amelia were designed for turtles, let alone one weighing in at 20g, and some of the medication was diluted 1:1000. A non-uniform distribution of the medication could have resulted in a reaction. While histopathology is desirable, a final cause of death is not always obvious even with examination on the cellular level.

So we're left with the questions, too little too late ?, did we start antibiotic therapy too late ? or too much too soon ?, was it a drug interaction that led to the Amelia's death. We may never know for sure. While the desire to avoid drug residues in wild animals and to facilitate as quick a return to the wild as possible is a guiding principal of wildlife rehabilitation, I will likely start animals on antibiotics sooner in the future. That means minimum rehabilitation times will reflect a course of antibiotics followed by a suitable withdrawal period established on a case -by-case basis. We also learned a considerable amount of clinical anatomy from the post-mortem exam, which will help us provide higher levels of care for these tiny little creatures in the future.



Terrapins

Our four post-hatchling continue to do well and are growing. Daily feedings over the weekend have been scaled down to avoid too rapid of a growth profile.

Cooters

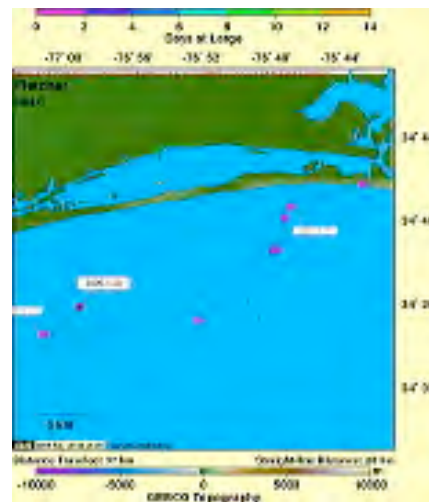
Cleared for release !, once a date is established (close to June 1st) it's back to wild for these six red-bellied cooters.

Sea Turtles at Large

Release at last for Fletcher ! Thanks to Wendy Walton from the Marine Science Center at the Virginia Aquarium for temporary housing and Matthew Godfrey in North Carolina who assisted in coordinating the southern release. Our satellite tag is



working, and updates are available from our website (nmlc.org). We will all be watching closely to see where Fletcher goes.



C. Rogers Williams VMD
Sea Rogers Williams VMD

Attending Veterinarian & Director of Science

[STAFF: Kathy Zagzebski, Don Lewis , Bridget Dunnigan, Brian Moore, Joanne Nicholson, Julie Seligmann.]

