

Rounds

Animal Health
Department

Medical Rounds

"medicine for all"



Caring for Stranded Marine Animals

NATIONAL
MARINE
L I F E
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.

June 15, 2010

Rounds Notes

8: 22-25 (2009)

Headlines News: Puffy Patty

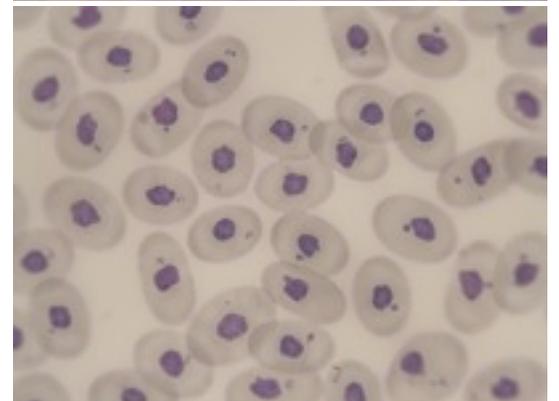
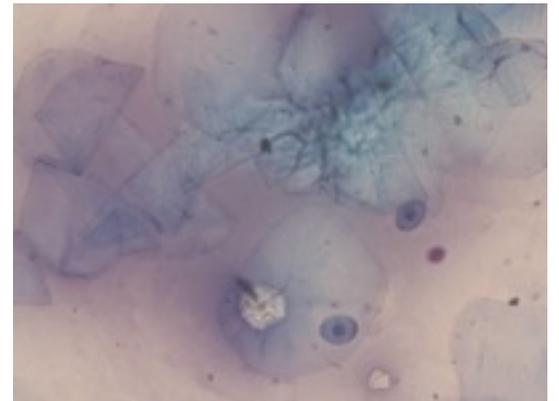
edema is the word

Our plan to feed Patty in a fresh water tub as a routine maintenance procedure may be contributing to the general 'puffiness' of Patty lately. It seems she was looking a little edematous and a fine needle aspirate found,

Our plan is to switch to brackish water (15-28 ppt) for feeding and hold on the weekly fresh water soak. On the good news side of things, I was able to collect blood from the medial femoral vein for the first time, but we only retrieved enough blood for a blood gas analysis and cytology. The blood gas was normal and ionized calcium levels continue to be adequate.

The carapace continues to heal. One large area of the blistered carapace peeled off last week. The skin over the blisters is dead and will not heal, but since there may be a protective effect on the underling skin we are not routinely popping and exfoliating blisters, As they do rupture we will continue to clean the areas with betadyne soaks and use small amounts of SSD topically, as we are in it for the long haul with this rehabilitation effort.

I meet with Dr. Tom French of Mass Wildlife and discussed Patty's case and we agreed that while the duration of captivity for this type of extensive injury to heal is long there is the possibility of wild release and Patty was deemed conditionally-releasable if the shell ever heals to point where it can provide adequate protection in the wild. As for this year, that is unlikely and do direct basking will be allowed as her carapace and pseudo-shell is too susceptible to sunburn.



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

Catch-22 passes staple !

Without the aid of a traditional staple remover, Catch-22 passed the rusted and small staple. The staple was significantly smaller than a typical Swingline staple and this serves a good reminder that turtles will eat anything in their tank and we always be on the look-out to make sure nothing we don't want in their tanks is dropped in or introduced without our knowledge.

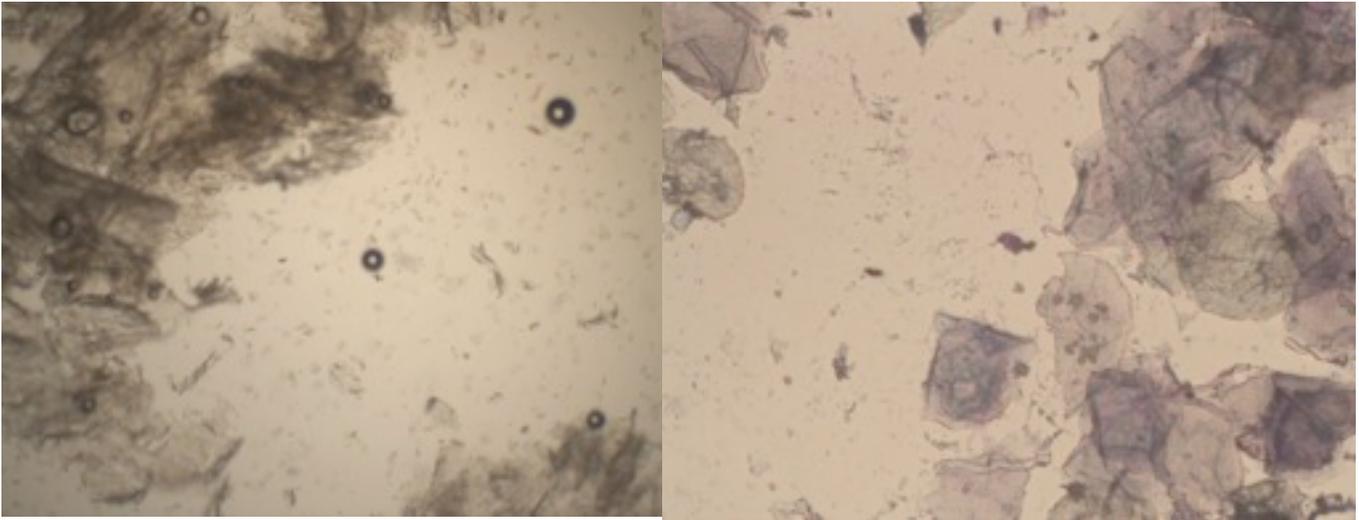


The radiographs do show a mineralized skeleton that is subjectively lacking some of the bone density I would like to see, but demonstrates no lesions of metabolic bone disease (nutritional secondary hyperparathyroidism), no periosteal reactions or proliferation, no folding fractures, scoliosis, nor exostosis were observed. The ionized calcium (1.43 mmol/L) seems fine to me.

The rest of the blood work was fine, notable findings were the high basophil count (>8,000/ul) but basophils are numerous in terrapins (Reavill 1994) and consistent with previous reports in this species (Innis, Tlusty et al. 2007).

The cultures found no fungal growth and excluded dermatophycosis (Ringworm- no it's not a worm, take it from me, I'm a veterinarian with an interest in the parasitic world). The failure to grow an organism is not proof of a lack of an organism and there are plenty of reasons an aquatic fungus optimized to grow at warm water temperatures may not grow in culture mediums and with protocols designed for terrestrial mammal systems. The

Glu mg/dl	76
Na mmol/L	130
K mmol/L	4.6
TCO2 mmol/L	38
iCa mmol/L	1.43
Hct %PCV	20
Hb calc g/dl	6.8
at 37°C	
pH	7.590
PCO2 mmHg	38.6
PO2 mmHg	84
HCO3 mmol/L	37.0
BEecf mmol/L	15
sO2 calc %	98
entered by:	CRW



affected shell scrapings did have bacterial growth which also is not surprising as this site is not expected to be sterile.

Our cultures found . .

Sphingomonas paucimobilis - 2+

Klebsiella oxytoca - 2+

Acinetobacter species - 2+

Intrinsic antibiotic resistance was found for a number of the antibiotics tested, but if called upon all three isolates were sensitive to Clavamox®, enrofloxacin, or amikacin so we have choices and choices are good. In the meantime we will continue with the Cooter Shell cleaning protocol and use chlorhexidine and SSD to treat the shell.

So what's causing the dull white plaques on the shell ?

I don't know, a superficial fungus is still a good bet. When scraped there appears to be normal shell under the affected areas with are typically associated with a junction between scutes but affect the large scutes unlike the proliferation of material between the scutes that we have seen before.

Our plan is to continue the shell cleanings (5 x week) allow controlled basking and maintain a clean, healthy, and warm environment with UVB sources and monitor the condition to see if we can get resolution of these lesions.

Where in the World:

Diamonds in the Rough

The eight diamondback terrapins were released on Cape Cod yesterday near where the eggs were collected last fall. The terrapins are identified by photo-identification. We wish you well class of 2010 with a 100% graduation rate.



Photo credit: Dory Estrada

C. Rogers Williams VMD

Sea Rogers Williams VMD
attending veterinarian and director of science



[STAFF: Kathv Zagzebski. Bridget Dunnigan. Brian Moore. Joanne Nicholson]

Bibliography

Innis, C. J., M. Tlusty, et al. (2007). "Hematologic and plasma biochemical analysis of juvenile head-started northern red-bellied cooters (*Pseudemys rubriventris*)."
J Zoo Wildl Med **38**(3): 425-432.

Reavill, D. (1994). Selected Topics in Reptile Clinical Pathology. U.C. Davis Avian/Exotic Animal Symposium. U.C. Davis California: 12.