

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.

August 26, 2010

Rounds Notes

11: 32-33(2010)

Headlines News: Patty's Skin Blister get Bigger, Patty get Dehydrated

Shell getting worse not better at current time

At the beginning of the month things were looking brighter for Patty, the healing appeared to be progressing nicely and the generalized edema had resolved. But her appetite waned and the patch of pseudo-shell, fibrous layer has grown. Under this thin and non-adherent layer is a bleeding granulation bed, but it now takes up to a third of the carapace, and there is a loss of fluids, some blood, and protein, similar to the losses experienced by burn victims. There is also the risk of infection. A complete blood count and chemistry profile showed resolution of the dehydration and for what is known of the species within normal limits, however, reptiles are famous for dying with perfectly good blood work.

Now Patty is dehydrated again and acidotic. We've started SQ fluid therapy (30cc 'reptile ringer's solution SQ SID 5 days). Also, trial of pain medications [buprenex® 0.01mg/kg IM/SQ] to see if the damaged shell is painful, and reinstitution antibiotics [enrofloxacin 8mg/kg IM once, 10mg PO q5d for 10 tx]. We continue to tempt her with tasty morsels to see if we can get her to eat.

We will continue with the fresh water soaks and topical betadine and SSD treatments to protect this fragile area.

Patty has come so far, it is easy to forget just how serious her condition is, it is life threatening and there may be reason reports of recovery from such a devastating injury are not reported, but we continue to try and support her through another critical phase.



Clinical Update: Fungal Frustrations

We can see you, but who are you ?

Here is the review of what's happening with the diagnosis of the fungal disease of the shell on Catch-22.

We know there is a fungal disease of the shell, we can see the fungal hyphae and elements in the histopathology sample.

After 3 tries, IDEXX identified one isolate of *Penicillium* sp. fungus from the shell biopsies. They are holding the sample in the lab on a 'slant' which we try to figure if the *Penicillium* is a pathogen or contaminate.

Cornell's first sample was overgrown with bacteria and a second sample was collected and sent in. They will try direct fungal universal DNA primers PCR on the scrapings, and try another fungal culture.

The histopathology block that contains the biopsy was sent to Washington State Veterinary Lab to see if PCR can be performed right on the tissue.

really, really ?

Growing fungi from reptiles on culture media is difficult, nutrient requirements are not well established and the antibiotics used to prevent bacterial overgrowth are often insufficient to handle the diversity and level of bacterial presence on reptiles, especially on the skin. Molecular techniques are very sensitive, almost too much so. A PCR with universal fungal primers works great on a pure culture, but if there is a mixed fungal infection the results are not identification of the two species, but complete garbage.

So we've collected all our samples, have three labs working on the problem, and how about Catch ? We'll I hope we get an answer from we have already done, it seems the scraping of the fungus from the shell is a perfectly good treatment, particularly when combined with the anti-fungal cream we've been using, the shell looks great and there is little left in diseased area to biopsy if we don't pin this down. We'll wait the 30 days it can take for results and consider release options for Catch-22.



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