

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.

July 30, 2013

Rounds Notes

18: 65- 69(2013)

Headlines News: Don't get all wound up

Grey seal admitted from the Cape

A subadult male gray seal (32 kg 114 cm) stranded in Dennis with lacerations to the flippers and the side of the body, initial evaluation let us to believe it was a shark attack, but after the wounds were cleaned, propeller wounds could make a similar injury, it's hard to tell. He was stabilized with pain medications, fluids and antibiotics over night.

In typical grey seal fashion, working with him for the wound care was just a little too dangerous, so he was sedated (buprenorphine 0.2 mg/kg IV, midazolam 0.15 mg/kg). We provided oxygen by mask and monitored an ECG, That with a little gentle restraint allowed the wounds to be shaved, cleaned and flushed, and then we could get radiographs of the chest and hind flippers. They cleaned up nice, the right front flipper is the deepest but does not appear to go to bone.

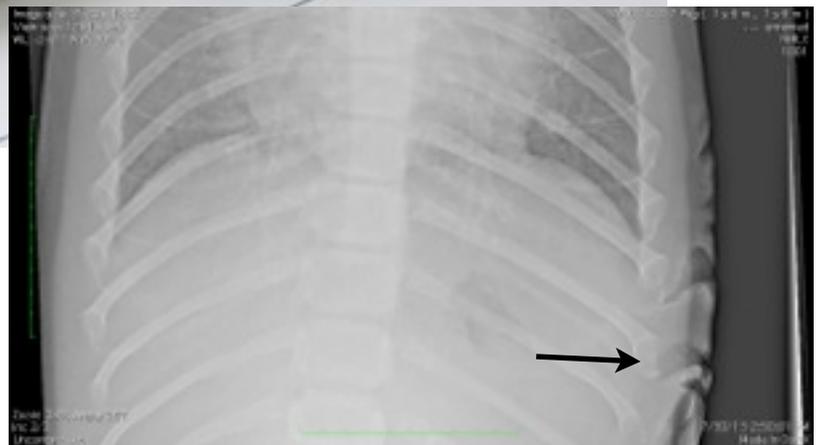


We'll continue with meloxicam (0.1 mg/kg SQ SID), antibiotics PPG (4cc IM BID), and fluids (LRS 2-3L/day) and wound care, and see if we can get him eating so we can switch to oral medications.

Wounds in a wild animal present some interesting problems: 1) are the wounds thought to be caused by a bite or scratch, if so the animal must be considered a rabies suspect, that is if the bite is suspected to be by another mammal, shark bites are exempt as fish do not transmit rabies. 2) Cleaning and primary closure can only be done if the wounds are not grossly contaminated and discovered within the first hour or so, these wounds could easily have been several days old (AN WERE GROSS) also, there was a whole beach of sand in thoes wound, that has all been cleaned out and flushed away. Most wounds in wild life are treated and managed as open wounds and allowed to heal by second intension. 3) don't forget to look everywhere, once we turned him over, there was another wound hiding under the left armpit. And, being covered in fur we can always miss a wound, so repeated evaluations are necessary to see if there is something else we need to address. Of course internal damage could also have been caused during an event so serious and patients need repeated monitoring.



The radiographs show no broken bones but it looks to me like the propeller nipped of the costo-chondral junction of a left rib head (arrow), and wow! the wounds look deeper than I thought at the exam.



Clinical Update: Ear's R Us

Malleus and Incus are stable

Malleus is going to scheduled for surgery (TECA LBO) at CCVS in a few weeks, in the mean time we continue to flush the ear daily. As you can see (right), he tolerates the procedure well, but it has not resolved the middle ear infection.

Incus has not developed any further ear discharge, the ear drum is intact and we'll make a pre-release decision next week. See, it's not all otitis media, and external ear infections occur in seals too, with much less consequence, and are relatively easy to treat.



Phocids, the true seals: Lucky's released

minus a few parasites Lucky is returned to the sea

Lucky did great and is back at sea. We learned that 2.5 mg/kg praziquantel does not eliminate the *Cryptocotyle* infection, while 5 mg/kg PO once stopped trematode ova shedding. Also, while the *Pseudoterranova* infection was not the major problem, it took several rounds of fenbendazole to clear this stomach parasite. The ivermectin therapy did seem to do a good job with the lung worms (*Otostrongylus* + *Parafilarides*), we were lucky and never had respiratory distress, but the staged deworming (start off slow with low dose fenbendazole) seemed to work.

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

Fungal Cooters Improved

All three of the fungal shell disease cooters did well with the treatment. We applied Curanail® in eight treatments one week apart. The first treatments also had us debride the surface keratin with a scalpel blade, and none of the cooters are showing signs now. We'll look at possible release in their near future.



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

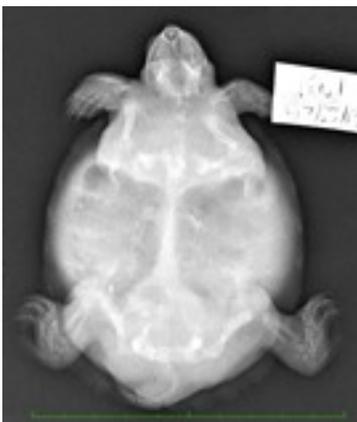
Metabolic Cooters with mixed results

Here are the results of the repeat radiographs from the cooters with MBD following 2 months of improved husbandry, vit D3, and calcium supplementation.



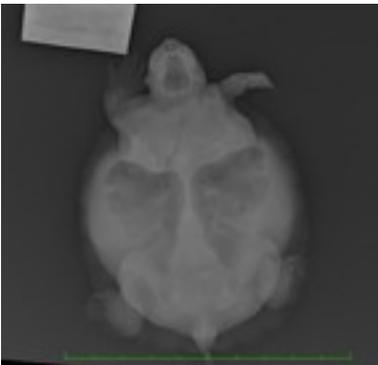
Yoko

This is a very nice response, these films look fine and I recommend release for Yoko, of course this cooter was always the best effected



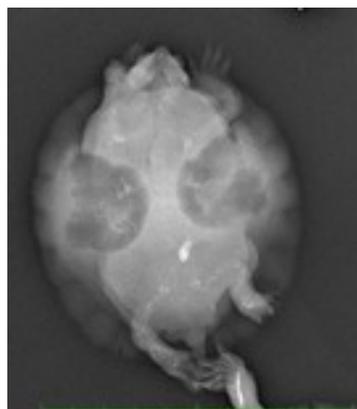
Paul

You can see the improvement in the overall bone density, there is still a little mottling and the bony 'domed' deformity of the shell. Still, I'm inclined to release Paul.



George

While there is improvement, it clearly lags behind the others, there are multiple lesions still identified in the shell and bone, still, George may be considered for release, he seems to do well in the water, but he can't right him self on land



John

Poor John, this cooter shows little no improvement and has lagged behind all of the others. We will hold a conference but I think release of John is not wise and he could be suffering.

Terrapins, Cooters, and Turtles, oh my . . . Penny for your thoughts



In a similar fashion to what we saw with Patty, first the superficial keratin comes off and exposes the thin epithelium, which then dies away exposing the dead dermal bone. The vast expanse of the dermal bone of carapace precludes aggressive debridement. We completed a course of cefazolin and will monitor and continue to clean the shell daily. It will still likely take several months until the new bone generates under the old necrotic carapace and pushes the bone up and out. In fact the whole process is slow and frustrating. What is also hard to fathom, is that when Penny was admitted to the NMLC Penny was anorexic and kinda dull (even for a turtle (sorry Charlie), but now she is eating great and much more active. I wish I could turn this condition around, and we'll do our best, but the prognosis is not good.

C. Rogers Williams VMD

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