

Confessions of a Therapy Laser Neophyte

By Donald W. Stremme, VMD
For The Education Series

I love going to conferences to see what is new in veterinary medicine, as well as to see what new products and devices have been developed. Then I start thinking about how these things can be applied to exotic animals, including wildlife, aquarium and zoo animals.

One of the most exciting modalities I have found recently is LLLT, or low-level laser therapy. I received a Companion Therapy Laser unit along with a demonstration on how easy it is to use and discussions on ways it has been used in dogs, cats and horses.

I hadn't heard about it in human medicine, but did some research and found that sports teams use it a lot. I also found out veterinarians have been using it in Europe since the 1990s.

I decided to use it on myself to learn what the animal feels and senses. I was totally amazed that a sore muscle from some awkward lifting felt better immediately. I was even more amazed that my arthritic knee felt 80 percent better immediately.

I wondered if this was what I would see in animals, so I started to make a mental list. We had a limping penguin that was still limping after months on Metacam, omega-3 and tramadol. It was common to see major trauma wounds on various animals—it might help those. And I wondered if it might be effective in some way for head and lateral line problems in fish.

Because I planned to use it around water, I made a plastic cover to protect the unit.

Exotic Challenges

One of the challenges and part of the fun of treating exotics is being able to be an innovator, such as making an effective anesthesia chamber for a porcupine.

The limping penguin would be my first patient. She had been limping for several months and was respond-

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A limping penguin who was on Metacam and omega-3 began to see improvement after treatment from low-level laser therapy.

ing only minimally to NSAIDs (Metacam) and a slight bit more when omega-3 was added, and only a little more when tramadol was added. Also, we just had CT scanning and films done at the University of Pennsylvania, which gave a definitive, documented diagnosis of degenerative joint disease.

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I started cautiously at 5 watts continuous delivery for 60 seconds (300 Joules) every other day. I didn't see much of a change that week, so I called my laser representative. He suggested I increase the time (and Joules) and to treat a larger area than just the stifle. He also suggested using it on the good leg since she was overusing that one in compensation.

I doubled the time and started seeing improvement. I continued every other day. In just a little over two weeks, she was walking almost normally. I could hardly believe it.

Rainbow Connection

I learned over the following few weeks that it is better to continue treating twice a week for a few weeks before just doing touch-up every month or two. Once I was convinced she would keep doing well, I slowly backed off all of her medications. She still did really well with laser maintenance as necessary (once every one to

two months)—and no other medications.

I saw a rainbow boa that was strangely firm for about 8 inches in an area near its heart. I suspected a mass. However, an X-ray showed spondylitis in this area and that the rest of the snake was OK.

We started Metacam and finally added tramadol, and that helped to some extent, but the snake still wasn't eating or moving normally and would strike when touched in that area. I started laser therapy at 1500 Joules for this entire area. There was 80-90 percent improvement within just three treatments and the animal was moving pretty normally the next week and eating normally again. Also, it could be handled in this area without biting.

So I had the facility discontinue the medications. The snake still did well until we also stopped laser treatments. Due to logistical problems and shed (when we didn't want to handle it), we didn't treat for a few weeks. She relapsed to her original clinical signs.

Since the facility still couldn't get the snake back to me, doctors there resumed medications. They noticed she was only about 50 percent better on the Metacam and tramadol and remembered she had been nearly 100 percent normal on laser therapy alone, so the logistical obstacles disappeared and we treated again three times a week for two weeks, then twice a week for two, and now just once a month to prevent relapses. She's doing really well, eating normally, moving normally.

Branching Out

I have now treated many different animals. I had another limping penguin, which was also limping for several months. It responded quickly, since I knew how many Joules to use. Once it was normal, in just a few weeks, I stopped. It hasn't needed any further treatment.

Based on the information I had read about treating cats with painful stomatitis without even having to open their mouths, I figured the therapeutic laser would be a perfect adjunct for treating stomatitis in reptiles. A Savannah monitor lizard presented with fairly severe stomatitis and wasn't eating. It was nice to be able to treat the mouth locally without having to open the mouth. We also used antibiotics, and it did heal more quickly than what I normally see with antibiotics alone.

I have also used laser therapy in several stingrays with wounds, and they also appeared to heal more quickly. I decided to try it on head and lateral line erosion, or HLLE, in fish. It's beyond the scope of this short article to discuss this at length, but I was excited to see healing using the laser.

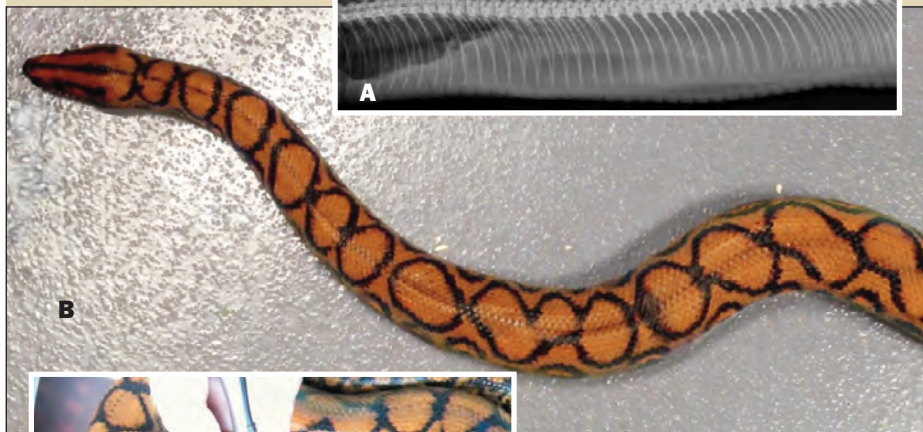
I next set up a project using controls, which proved what I had just found in the initial fish treated—that the treated fish were responding to the laser.

Now I think of using the therapeutic laser all the time: for wounds, for bumblefoot, for chronic arthritis, for post-op to speed healing and to reduce edema and pain. ●

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Snake



A) A radiograph revealed spondylitis in a rainbow boa.

B) Laser therapy at 1500 Joules was performed on the snake.

C) Due to logistical problems and shed, treatments were stopped and the snake relapsed. After treatment resumed, the snake once again began showing signs of improvement.