

A special advertising section

Laser therapy for hard-to-treat conditions

Difficult cases illustrate effectiveness against infections caused by fungus-like organisms.

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For The Education Center

Last month in Veterinary Practice News, the case winners and runners-up for the "Make a Case with Companion" contest were announced and the winning case, "Rowdy Can Walk," describing the remarkable recovery of a geriatric Labrador retriever patient with progressive non-painful paresis, was discussed.

So many exciting and interesting cases were submitted for the contest, sponsored by Companion Therapy Laser of Newark, Del., it was impossible to present enough detail from all the cases in one article to do them justice.

This year, veterinary judges were particularly intrigued with two cases (one a canine case, one equine) that involved the use of laser therapy as an adjunct, or more specifically as a last resort attempt at treatment for severe fungal or fungal-like organism infection. While the anti-inflammatory effects of laser are well documented and it is frequently used to treat wounds that have a significant degree of associated cellulitis and/or bacterial infection(s) present, the results of these two cases were still remarkable given the underlying etiologies.

Canine Case "Evo," submitted by Elizabeth Boggier, DVM, of Mountainview Veterinary Hospital in Rockaway, N.J., involved infection and severely destructive fungal rhinitis/sinusitis from Aspergillosis occurring in a 4-year-old Rottweiler. The fungal infection had worsened despite a variety of localized (intranasal infusions) and systemic therapies over a three-year period and the pet owners were considering euthanizing the pet due to poor quality of life.

At the time laser therapy was attempted as a last resort, the patient had a raised, painful, fistulous swelling over the right frontal sinus with active drainage of purulent exudate. The patient was treated with laser after the lesion had been topically cleaned and received 10 days of systemic enrofloxacin for secondary bacterial infection.

By 30 days into treatment, the size of the lesion had significantly reduced and there was less discharge. The owners reported increased activity at home, though some discomfort over the frontal sinus was noted. The patient continued to improve over the next month. Eight weeks after laser treatments were instituted, the swelling was only ~5 percent of its original size and the discharge was completely resolved.

"I have been so sufficiently impressed with the results of this case, I recommended laser therapy to a colleague with a similar challenging situation," Dr. Boggier said. "This was via an online discussion on Veterinary Information Network, including Evo's dramatic before and after pictures, so that it may be shared with hundreds of veterinarians searching for a complementary treatment for Aspergillosis."

Equine Case "PDiddy," submitted by Rhonda Ellison, DVM, of Calera Animal Hospital in Calera, Ala., involved the treatment of chronic swollen lesions with purulent exudate on the legs of an 18-year-old horse.

Multiple diagnostics and various treatments were instituted over the course of a year, which did not result in improvement; in fact, eventual worsening was noted. Because previous histopathology results had indicated eosinophilic inflammation being possibly associated with a *Pythium* infection (even though no hyphae were observed in original biopsied sections), a serum sample was submitted for serology as well as additional biopsy sample for histopathology.

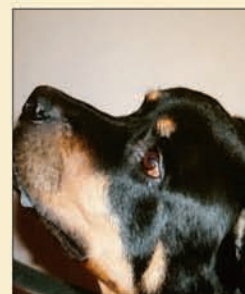
Ultimately, these diagnostics and consultation with a university diagnostic lab confirmed that the results were consistent with equine lagenidiosis. The microorganisms causing this infection are similar to fungi and clinical signs of are similar to those of equine pythiosis.

There is no established treatment for lagenidiosis except for aggressive surgical resection of infected tissue. As the lesions for this patient were on the lower limbs and this was not an option, laser therapy was attempted.

With only laser and bandaging—other medications had been stopped—the lesions resolved and Dr. El-



Evo before, above and immediately below.



Evo after, above left and right.

lison commented, "This patient would fall asleep during treatment. [Laser therapy] eased the itch and decreased the swelling over the next 24-48 hours following treatment. The cutaneous lesions definitely decreased in size and responded to laser therapy. It saved this horse named PDiddy when no one else gave him hope!"

These success stories and other clinical results observed by laser therapy users may be in line with recent laser research that suggests that laser therapy may play a role in the activation of neutrophils in immune response(s) and subsequent increases in their viability and bactericidal, as well as possibly fungicidal, activity.

Further research is being done to elucidate these mechanisms, but these possibilities are nonetheless interesting and exciting with regard to having a possible adjunct for treating infections such as these that often require long-term medications that may have significant side effects and/or expense associated with them.

For details on these and other cases from this year's Make a Case with Companion Contest, please visit our website at: www.litecureinfo.com/2015MakeACaseSpecialAwards and www.litecureinfo.com/2015MakeACaseWinners. ●



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