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A special advertising section

Class IV laser therapy in avian, exotic pets

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For The Education Center

PHOTOS COURTESY OF NESS EXOTIC WELLNESS CENTER

Boa constrictor with wounds from rat bite before,top; at five days of treatment, above, and after six weekly treatments.

Laser therapy is fast becoming a common modality in veterinary practice.

Therapeutic lasers are being routinely used for the treatment of everything from simple surgical incisions to severe osteoarthritis. Potential applications continue to increase as practitioners utilize this amazing technology to treat virtually any condition that exhibits pain or inflammation.

In addition, many practices routinely incorporate laser therapy in any wound management protocol.

Photobiomodulation

Laser therapy, known as photobiomodulation, utilizes specific wavelengths of light to penetrate tissues and elicit a biochemical and biological response. The resultant effects of laser therapy include reduced pain, reduced inflammation and accelerated healing.

Effective treatment depends on delivering an appropriate dose of laser energy into the affected tissue.

Patients with acute inflammatory or traumatic conditions typically respond within one to a few treatment sessions at relatively low target doses. Chronic or deep tissue conditions require a higher target dose and more frequent treatment sessions, with some necessitating ongoing maintenance therapy.

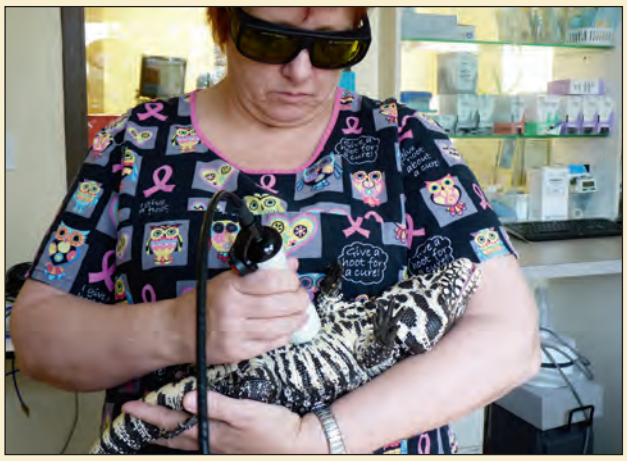
Exotics Species Protocols

Treatment protocol settings for exotic species have been a work in progress by the Companion Therapy veterinary clinical team as well as experienced exotic practitioners.

Protocol settings for canine and feline patients in earlier laser therapy devices had to be adjusted for use in these smaller species. Consideration for the anatomic and physiologic differences in these exotic species led to further adjustments of treatment protocols.

For example, adjustments were made to relatively decrease the avian settings to take into account their delicate skin and feather architecture, as well as their higher metabolic rates.

Conversely, the dosage settings for reptiles are relatively increased to accommodate for their thicker skin and lower metabolic rates. Reptile protocols are calculated according to lesion size rather than patient size, due to the wide range and variety of reptile species seen in practice.



Tegu receiving laser therapy for constipation

Small Exotic Mammals

Exotic small mammal protocols are modified versions of established feline treatment settings for many of the common conditions seen in both groups of patients. As for other companion animals, therapeutic dosages established for trauma and wounds are based on lesion size.

These settings are used for pododermatitis in rabbits and traumatic wounds in ferrets, for example. However, dosage protocols for conditions such as arthritis, pain and swelling/edema are based on patient size and anatomic location.

Spondylosis is a common occurrence in aged rabbits, resulting in hind limb weakness and paresis as well as generalized pain leading to lack of mobility. The quality of life in these older patients is greatly improved when utilizing the laser at the arthritis and chronic pain setting. This is also the setting used for spinal or pelvic trauma in rabbits, but these cases may require more frequent laser sessions for a positive outcome.

Treatment settings for thoracic and abdominal disorders are based on the size of the patient. An abdominal setting is beneficial when incorporated in the treatment protocol for gastrointestinal stasis in rabbits and guinea pigs.

Utilizing the Class IV therapy laser in these cases has greatly improved the recovery of these patients in practice by reducing inflammation and providing pain relief to the abdomen. Similar results are observed in cases of cystic calculi in ferrets, rabbits and guinea pigs.

Parakeet receiving laser therapy for fracture (before and during treatment photos)

Avian Laser Therapy

Avian patients benefit equally from the use of therapeutic lasers. More precautions should be taken when treating birds than with most other species because of their thin dermis and feathering.

As a result, the established settings in birds are lower relative to comparable indications in mammal species. This is observed in the latest protocols for wound and trauma settings. However, these settings are quite useful in treating pododermatitis in pet birds and raptors, as well as self-mutilation wounds commonly encountered in Quaker parrots and cockatoos.

Of course, the underlying conditions must also be addressed, but laser treatments will expedite recovery. In fact, laser settings have been defined to facilitate recovery from feather picking by stimulating the quiescent feather follicles and reducing inflammation in those cases involving folliculitis.

Proposed protocols for fractures, arthritis and other painful conditions are based on the size of the bird as well as the anatomic location of the problem. In clinical experience, fractures treated with laser therapy tend to recover approximately 25 to 50 percent faster than those managed by traditional means alone

Reptile Laser Therapy

Reptile protocols were established differently due to the variety of species encountered in practice and the wide range of sizes and shapes. Consideration must be given for variables such as the shell of a tortoise, thick scales of a blue-tongue skink, or the thin dermis of a leopard gecko lizard.

However, a wide variety of conditions can be readily treated in any of these reptile species. These cases include rat bites, thermal burns, infectious stomatitis, metabolic bone disease, fractures, and arthritis.

Although these protocols are based on lesion size, the settings for these preset conditions are adjusted based on pre-anticipated depth and severity of the typical case. Therefore, adjustments may need to be made for situations outside the norm as in any technique in clinical practice.

Laser therapy is indicated in many conditions commonly encountered in avian and exotic practice.

As with our dog and cat patients, the incorporation of the Class IV therapeutic laser in daily practice will greatly enhance the quality of life in many patients by expediting the healing of lesions as well as reducing inflammation and managing pain. ●

Dr. Ness is a 1990 graduate of the University of Illinois College of Veterinary Medicine. He has practiced avian and exotics pet medicine throughout his entire veterinary career. Since the late 1990s, Dr Ness has explored the realm of integrated holistic medicine and adapted the various therapies to exotic pet species to further broaden his treatment options. He owns Ness Exotic Wellness Center in Lisle, Ill.

This Education Center article was underwritten by Companion Animal Health of Newark, Del.