DOCTOR VET THERAPY LASER

THE SUPERHERO OF VET CLINICS

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DOCTORVET :
THE SUPERHERO OF VET CLINICS

LEARN HOW TO FIGHT THE 7 MOST COMMON PATHOLOGIES AMONG PETS WITH THE HELP OF VETERINARY LASER THERAPY

Introduction

Every day, veterinarians all over the world have to fight against the most diverse diseases that affect pets: **dermatitis, otitis, gingivitis, arthritis, wounds** and **inflammation** of different kinds and many other clinical conditions.

What if we told you that there was a superhero ready to help vets everywhere across the globe in this battle? It would be great to have a **loyal ally in your clinic** who is always ready for action, wouldn't it?

The good news is that this superhero does exist: his name is **DoctorVet**! DoctorVet's superpowers have nothing to do with magic or supernatural abilities. It's all down to science.

In this guide, you will learn about the main conditions that you can treat with the help of DoctorVet laser therapy, and we will give you some valuable tips on how to treat each condition. And don't forget: **if you wish to get to know DoctorVet up in person... just book a free demo!**

Enjoy the reading.

About DoctorVet

DoctorVet is like a **veterinary laser therapy expert**, ready to help you and your clinic administer **effective treatments** to heal many diseases that affect your patients.

As you know, every patient is unique. The specific conditions you need to treat determines how you need to administer laser therapy. DoctorVet will automatically adjust the light intensity, wavelength and pulse frequencies for you according to the unique characteristics of each patient and their specific condition, and advise you before each treatment.

DoctorVet's superpowers: science, not magic!

DoctorVet is truly a superhero for veterinary clinics, because through laser therapy it helps to treat numerous diseases and conditions with **just one device** and **with ease**!

Laser therapy is the result of electromagnetic energy interacting chemically and biologically with tissue, causing **biostimulation**.

Laser therapy has been advocated for a broad range of clinical applications for pain management, **wound healing, reducing inflammation/swelling/edema, and rehab** in both large and small animals. It is used to treat joints traumas, wounds, inflammations, infections, and many other clinical situations. It is also useful in post-surgical and orthopedic rehabilitations and before surgery to condition the tissues. Laser therapy allows to properly manage acute pain, such as sprains and tendinitis, and chronic pains, such as arthritis and hip dysplasia, becoming "a must to have" for vet clinics today.

In this guide we will focus on the **7 most common conditions that you can treat with DoctorVet laser therapy**. Read on to discover all the benefits of this innovative approach to pet care!

BOOK A DEMO »

The 7 most common pathologies and clinical conditions that can be treated using DoctorVet's laser therapy

DERMATITIS

Moist dermatitis or hot spots is characterised by the presence of erythematous focal injuries anywhere on the body with a moist appearance and partial alopecia.

The various general effects of laser therapy should be considered in terms of inflammation control, infection and the general effects on dermatology. **Therapeutic laser** can be useful as an **adjuvant therapy for dermatitis**, helping to reduce erythema and re-establishing cutaneous integrity. An antimicrobial effect has been seen against other Staphylococcus, meaning it can be useful in reducing the amount of antibiotics administered. This can reduce the side effects of systemic treatment.

DoctorVet has protocols that can be combined to help the treatment of dermatitis. Based on the characteristics of the pathology and the histology, the recommended protocols would be those of **inflammation, superficial and/or open flesh infection** based on the appearance of the lesion, with an assessment by the veterinarian being fundamental.

Furthermore, when dealing with an acute process, we recommend reducing the dose (by 25-50%) according to the combination of various protocols. On the other hand, when dealing with a chronic process and according to the combination of various protocols, those doses can be maintained or increased by 25-50%.

The sweeper treatment head should be used with the scanner application technique in non-contact mode. The treatment schedule may vary between 2-5 sessions/week during the induction stage depending on whether you are dealing with an acute or chronic process. These sessions can be spread further apart once an improvement is observed.

GINGIVOSTOMATITIS

Gingivostomatitis causes significant and occasionally proliferative discomfort, affecting all tissues that come into contact with saliva and bacterial plaque, including the gingiva, alveolar mucosa, labial mucosa, sublingual mucosa, palatoglossal arch and soft palate. It is characterised by severe and persistent inflammation and/or ulceration lasting more than six months, affecting the soft tissues of the oral cavity. Its complexity poses a diagnostic and therapeutic challenge.

Laser therapy becomes a helpful tool as it can assist in **controlling the inflammation, reducing the pain and boosting the healing of wounds** caused by the pathology. It can also help the antimicrobial effect due to the fact that many of the bacteria involved are anaerobic. With laser therapy, an antimicrobial effect in many anaerobic bacteria has been seen. In other studies, a beneficial effect has been seen in viruses. The fundamental goal is to prevent recurrence and to reduce the required medication.

DoctorVet is enormously helpful as an adjuvant therapy for feline gingivostomatitis. Intra-oral treatment is possible immediately after surgery using the spot hand tool. Subsequently, the patient can be treated without the need to sedate or open the mouth (i.e., trans-oral treatment with the mouth closed) using the scanner hand tool in non-contact mode by sweeping the caudal zone to the lips, covering the lips and the chin zone to treat the entire oral cavity.

The chosen protocols are: **inflammation, superficial infection** (intra-oral treatment), **deep infection** (mouth closed), **tooth extraction** (immediately after surgery), **oral wound**.

The treatment schedule is **4-5 days** at the start of treatment, with subsequent spacing of sessions until a maintenance level is reached.

OTITIS

Dog otitis is usually **multifactorial**. It is therefore essential to know and treat the various factors that cause otitis, as well as those that perpetuate the disease. Furthermore, some of the underlying factors are **excessive cleaning, moisture and lop ears**, among others. The causes leading to pathology are usually allergy-related (such as atopic dermatitis), ectoparasites (Demodex and Otodectes), foreign bodies, endocrinopathies (hyperthyroidism, hyperadrenocorticism, diabetes), epithelial problems and tumours.

All this leads to the symptoms of otitis, which include itching, head shaking, head tilting, pain, bad odour and/or secretions from the conduit.

In **cats**, instead, otitis occurs following **inflammatory proliferation** or **ascending infections** or **dysfunctions of the ear canal**. This otitis occurs due to hyperplasia of the epithelium, cells increase secretion activity, inflammatory cells appear, oedema appears and fibroblast activity increases with the accumulation of collagen, creating an ooze that collects in this area.

Feline patients present head tilt and may show peripheral and central vestibulopathy when the otitis has spread extensively.

For both dogs and cats, **DoctorVet** can be **useful** as it helps to reduce the inflammation and pain caused by otitis. Furthermore, laser therapy presents an antimicrobial effect in some of the microorganisms involved in the pathology.

It is applied using the non-contact method when only treating the base of the ear and in contact mode when following the path of the channel through the skin, using the standard hand tool. The channel can be treated directly using the “spotter” hand tool.

The recommended protocols would be those of **inflammation and deep infection** (when treated through the skin) or **superficial infection** when treating the channel directly. Treat **three times/week** until an improvement is observed.

HIP DYSPLASIA

Hip dysplasia is a non-congenital hereditary condition occurring in large and giant breeds. It is also related to environmental factors, such as excess high-energy diet, high activity during development and excess weight. Subluxation or luxation of the femoral head occurs due to abnormal development of the coxofemoral joint. Articular degenerative disease or osteoarthritis (OA) is a secondary complication.

Laser therapy can help both conservative and surgical treatments. In the former, the initial goal is to **control the pain and inflammation**, and then to help maintain **good muscular condition** by stimulating microcirculation and creating a biostimulant effect in the articular cartilage. If a correct therapeutic protocol can be established, it will be possible to **reduce pharmacological treatment** and therefore any potential side effects.

In surgical treatment, the goal is to **reduce the pain and inflammation** after surgery. The goal then shifts to **reducing recovery time** through correct ossification.

DoctorVet offers a **specific protocol** for hips capable of treating hip dysplasia. The ideal solution for this pathology is to treat using a hand tool and avoid excessive pressure, especially if the patient presents limb atrophy, as this can be uncomfortable. If contact cannot be tolerated, the scanner hand tool can be used in non-contact mode.

The specific hip protocol **can be combined with the inflammation and general pain protocol** depending on the symptoms shown by the patient. Treatment **can begin with three sessions per week** until the effects of photobiomodulation are seen. Maintenance sessions can be then performed, which may vary from one treatment every 15 days to one treatment every 4-5 weeks.

BOOK A DEMO »

WOUNDS

Correct control of the entire **inflammatory process** is essential in wounds due to its fundamental nature **for any subsequent healing**. It is one of the most widely studied effects in laser therapy, **accelerating the process by as much as 30-40%** in some cases. It also achieves healing of a better quality. In order to control this entire process, it is highly useful to begin laser therapy as soon as possible.

The usual care of wounds in veterinary science consists of performing treatments and the oral administration of antibiotics and anti-inflammatory drugs.Thanks to **DoctorVet**, we can help to accelerate this entire process because it has **different protocols** depending on the origin of the wound. A distinction can be made between **open wounds, scars, incisions, burns and subdermal wounds**.

These protocols can be selected according to the origin and characteristics of the wound.

Furthermore, **these protocols can be combined with one another** depending on the presence of infection given that, if present, the recommendation is to combine the above protocols with the protocol for superficial infection. It will be possible to rule out this protocol when the wound shows a good appearance and it will be possible to establish fibroblast stimulation as the main objective. They can also be combined with the protocol for inflammation.

It is not only important to choose the protocols correctly but also the application techniques. A **NON-contact method** should be used when treating wounds, with the most recommendable hand tool being the scanner. With DoctorVet, we will always use the scanning technique.

The treatment schedule begins with alternate days. Once we start to see the effect of photobiomodulation, we will switch to three days a week. Treatment can be applied once a week during the final stages of healing.

INFLAMMATION

The inflammatory process is a defence mechanism employed by the body to prevent greater injury or infection. The result of this process can be negative when there is a lack of control over the various stages of the inflammation and it becomes a recurrent or a chronic problem.

Laser therapy regulates this entire process, providing certain **control over the acute stage of the inflammation** that is fundamental for subsequent tissue repair stages.

Furthermore, the application of laser therapy led to the observation of **reduced prostaglandins** and a reduced expression of COX-2 RNAm2, as well as a reduction in certain inflammation-related interleukins, such as IL-1β3, TNF-α and IL-6.

A proliferation of fibroblasts takes place (increasing due to stimulation from macrophages in the previous stage) during the **proliferative** or **fibroblastic** stage (which lasts 4-15 days). They also differentiate into myofibroblasts. Angiogenesis also takes place at this stage, stemming from the release of the vascular endothelial growth factor (VEGF).

Vasodilation is maintained, thanks to the nitric oxide and the afore-mentioned angiogenesis. All this is maintained until adequate oxygen supply is re-established in the wound area. Remodelling is the final stage, which can last up to two years. This stage can be shortened with laser therapy, achieving stronger and more biomechanically functional tissue.

Hence, **laser therapy helps to control the entire inflammatory process**, becoming necessary to achieve the analgesic and biostimulatory effect for the various tissues. DoctorVet has a **specific protocol** to regulate said process, which can be combined with other pre-established protocols.

OSTEOARTHRITIS

This is a pathology that can affect 20% of the canine population from the age of one year onward and this percentage increases to 80% if we consider dogs over 8 years. It is a degenerative joint disease that affects the synovial joints. It is progressive and irreversible, leading to pain, inflammation of the synovial membrane and changes in the synovial liquid, limps of varying severity (based on disease severity) and reduced joint function. Osteoarthritis is the most common reason to prescribe non-steroidal anti-inflammatory drugs. Therefore, **multimodal treatment is essential**, including rehabilitation. The usefulness of **laser therapy** has been shown when applied in combination with other treatments, thereby supporting multimodal treatment. Numerous studies support the benefits of laser therapy in osteoarthrosis.

Multimodal treatments include pharmacology, rehabilitation, nutrition, and regenerative medicine. **Laser therapy can be combined with different physical agents to enhance and accelerate the overall goals of rehabilitation.** In this regard, it is very important to highlight the need for correct knowledge of the various physical agents, the pharmacological treatments and the general condition of the patient by performing a correct examination and functional assessment to establish the best therapeutic options in each situation.

The precise moment when rehabilitation should begin is often not known. It should be started as soon as possible, to reduce inflammation and achieve **proper tissue oxygenation**.

There is no such thing as a cure for osteoarthritis: the focus is on controlling the painful and limiting consequences and trying to slow down cartilage degradation. The reason why laser therapy is widely use within osteoarthritis multimodal treatments is to **reduce joint inflammation, manage pain, and stimulate local metabolism to fight degradation** (I.E. biostimulation).

DoctorVet features **specific pre-set protocols** for areas such as carpus, tarsus, elbow, stifle, back, and hip. These can also be combined with general pain and inflammation protocols depending on the patient clinical situation, especially if it is acute. In this case, the best practice is to treat the patient **3 times for the first week, 2 the second, and 1 the third**. Afterwards, the patient shall be treated once every other week and then once per month. The goal is to provide the patient with a good quality of life by reducing and/or eliminating pharmacological therapy within a multimodal treatment that includes DoctorVet laser therapy as its main agent.

Conclusions

DoctorVet laser therapy allows you to treat many different clinical conditions and diseases effectively using a **single, easy-to-use device** through an extremely intuitive operation.

In short... DoctorVet is the help you can't do without!

Your patients will love the short, relaxing laser therapy sessions, pet owners will be happy when they see their pets feel better, and your clinic will be able to stand out from others by offering an innovative treatment method with scientifically proven results.

Would you like to learn more on how DoctorVet can help you? **Book your free demo now.**

Seeing is believing!

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www.doctorvetlaser.com