

MLS[®] Laser Therapy: A Case Study

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Treatment of Rattlesnake Bite Infected Wound

Patient:

Marley, Female, spayed Rhodesian Ridgeback mix, 2 years, 61 pounds

History:

Marley presented on September 16th for an open wound on her chest due to a pygmy rattlesnake bite. Marley was taken to the ER on September 10th to be treated for the initial bite wound.

Exam:

Examination revealed a large open wound at the ventral cranial thorax with surrounding flat firm subcutaneous layer, discharge and strong odor. Also present: wound necrosis and skin sloughing at the original bite sites secondary to the venom.



Marley initial exam 9/16/2016

Differential Diagnosis:

1. Infected Wound
2. Chronic Inflammation

Treatment Plan:

Debrided the wound to remove black skin and yellow tissue. Diffused firm swelling under and including the tissue surrounding the wound. Betadine flush followed by laser therapy daily for 12 days to combat wound contamination and chronic inflammation. Bandage with silver sulfadine changed twice daily.

Treatment Notes and Progress:

September 17: Marley presented for her 2nd laser treatment. Applied SSD cream and changed bandage.



Marley 9/17/2016

September 19: Marley presented for her 3rd laser treatment. Applied SSD cream and changed bandage.



Marley 9/19/2016

September 20: Marley presented for her 4th laser treatment. Applied SSD cream and changed bandage.



Marley 9/20/2016

September 21: Marley presented for her 5th laser treatment. Applied SSD cream and changed bandage.



Marley 9/21/2016

September 22: Marley presented for her 6th laser treatment. Applied SSD cream and changed bandage.



Marley 9/22/2016

September 24: Marley presented for her 8th laser treatment. Applied SSD cream and changed bandage.



Marley 9/24/2016

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Treatment for Rattlesnake Bite

Treatment Notes and Progress:

September 29: Marley presented for her 11th laser treatment. Her wound had shrunk in size and wound depth was less. Superficial skin exposing muscle layer was open and no further sloughing had occurred. Appeared ready to close the skin in some areas. Wound debridement with a #10 scalpel blade along the muscle and skin margins & able to close 3/4 of the wound. Skin layer 3-0 PDS cruciate mattress pattern. The proximal portion of the wound was too wide to close via sutures and was expected to shrink and heal with laser treatments and cleaning.



September 30 - October 8: Marley presented for her 12th through 15th laser treatments. Wound continued to heal very well through suture removal on October 12th.



MLS Laser Therapy Protocols:

Setting: Wound, Infected & Inflammation

Probe Used: Small Handpiece

Mode: CPW & 36hz

Time: 1:18 & 5:18

Treatment Delivery: Point to Point

Points: 6

Dose: 2.09 & 3.99 J/cm²

Total Joules: 250.848 & 478.236

Phototype: White

Intensity: 100%

Treatment Area & Points:

Open wounds on the chest, pictured

Treatment Interval:

One session daily for 12 days, then every other day for 3 sessions

Results: Successfully Treated

Marley saw improvement in her bite wound after just a few MLS Laser treatments. Tissue and skin continued to regenerate and heal as treatment progressed and improved vastly after closing via sutures.

