



Multi Radiance
Super Pulsed Lasers




aveto

Multi Radiance for Equine

Case study



Injury - Prognosis – Elzarena Janis Schneebeli

 **Elzarena**, 14-year-old showjumper mare, currently competing on 140 cm with Janis Schneebeli, mare was supposed to go back to sport. Elzarena competed on GP level before she was owned by Janis Schneebeli.

Injury Situation / anamnesis: after injury happened, visit at Dr. Gygax on 22nd October 2023, **reason of injury?**

Diagnosis: Musculus interosseus medius injury

Symptoms: lameness, right front leg

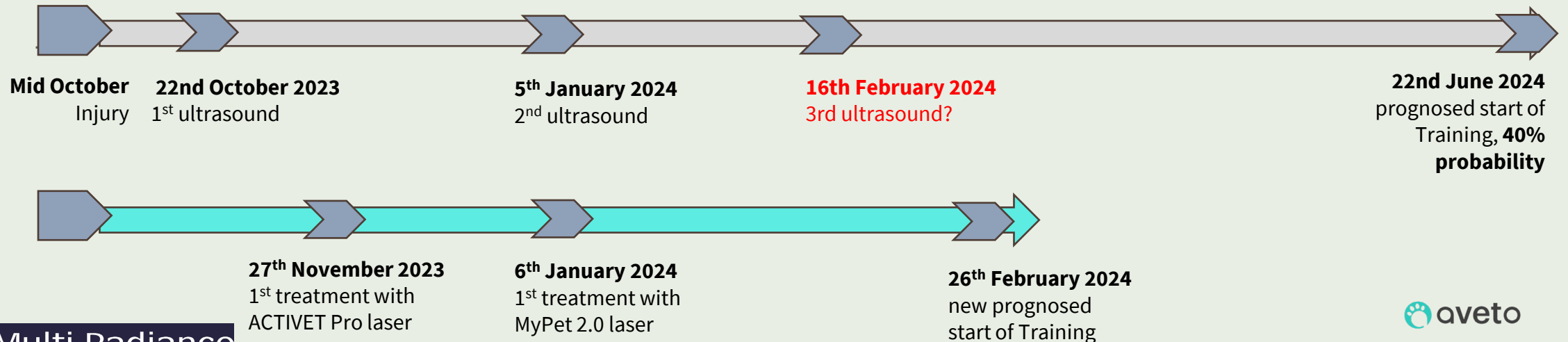
Prognosis: 40% chance to go back in show jumping.

Recommended treatment: 30 Minutes walk daily

Medication: 10 days approx. Metacam and Ekyfogyl Crème.

From 27th of November: Elzarena was treated daily with PEMF Bemer mat and Ice Vibe boots for 20 minutes after 30 minutes walking.

Questions to Dr. Gygax: Describe the patient's baseline condition, medical history functional limitations, any major disabilities or other pathologies if known. Describe the clinical tests performed and the patient's reactions.



Treat. Prot. – Elzarena Janis Schneebeli



Priority Principle approach by Multi Radiance

1. **Holistic Approach – Preparation for treatment -> healing by priority principles**

Unwind protocol: Scan technique, 1000Hz, 1cm/sec from withers to tail start along nerve roots, approx. 5-7 min.

2. **Swelling 1000-3000Hz 3 minutes** - Use Oshiro's Method: light over pressure contact up (distal to proximal) to the next lymph node medial at the shoulder. Then press, release, repeat 3x at the lymph node, then Woodpecker technique back down to the swollen spot.

3. **Inflammation 50Hz 2 minutes (PHT)** - Use Photohemotherapy: 50Hz, with contact or scan technique, 2min on proximal artery above carpal joints medial, minimizing light loss to help improve blood flow with photodissociation of nitric oxide for vasodilation.

4. **Tissue repair, 250Hz for 2 minutes red only. Once per day, do not overtreat:** apply directly on, above and below the Suspensory Origin to help photons reach the injury site from all angles.

Treatment Protocol Elzarena



27.11.23 / 1st Treatment: The affected area is swollen and feels warm. No signs of lameness when walking, no signs of pain, not sensitive, reaction to touch. Remark: The mare is generally not very sensitive.

1. Unwind Protocol: horse got into a deep relaxation and reacted at different vertebrae's (TH8-TH 10, TH 16 and Loins). → once per day, 1st day and on all following days, along the spine
2. Swelling Protocol with Oshiro technique at 1'000Hz. -> once per day, for 3 days on 1'000Hz then changed 3'000Hz.

28.11.23 / 2nd Treatment: The affected area is improving, and the swelling has gone down a little. The heat is still noticeable.

Protocols applied: Repetition of the protocols, no change.

29.11.23 / 3rd Treatment: The affected area continues to improve. The swelling has gone down and the area has become cold.

Protocols applied: Repetition of the protocols, no change.

30.11.23 / 4th Treatment: The area of the injury looks fine, with no swelling and a normal temperature. The patient reacted well on treatment, mobilizing her carpal joints by lifting her leg up and down a few times.

Protocols applied: Unwind with 3'000 Hz, Inflammation 50 Hz and Tissue repair 250Hz on the medial.

1.12.23 / 5th Treatment: The area was swollen again, and the heat has returned.

The patient reacts to the Unwind protocol different from before. She only achieves deep relaxation when the laser is in contact to her loins.

Protocols applied: Repetition of the protocols from Nov 30th, no change.

2.12.23 / 6th Treatment: Symptoms remain the same as the day before

Protocols applied: Unwind, Swelling with 3'000 Hz.

Treatment Protocol Elzarena

3.12.23 / 7th Treatment: The lesion improved again, the fluid decreased, and the area felt colder. Better response to the Unwind protocol again.
Elzarena's coat looks better (shinier).
Protocols applied: Unwind and Swelling

4.12.23 / 8th Treatment: The lesion is still improving. No heat, but slightly swollen.
Protocols applied: Unwind and Swelling

5.12.23 / 9th Treatment: The area of the injury looks fine, absence of heat, but slightly swollen on the anterior branch of the suspensory ligament.
Protocols applied: Unwind, inflammation protocol on the artery proximal, the carpal joints distally to the fetlock and tissue repair to stimulate the spot of the injury.

6.12.23 / 10th Treatment: The area of the injury looks fine. The feeling of heat and swelling are no longer present.
Protocols applied: Repetition of protocols from 9th Treatment.

7.12.23 / 11th Treatment: No changes worthy of note.
Protocols applied: Repetition of protocols from 9th Treatment.

8.12.23 / 12th Treatment: No changes worthy of note.
Protocols applied: Repetition of protocols from 9th Treatment.

9.12.23 / 13th Treatment: Pause of the laser treatment (rest day).

10.12.23 / 14th Treatment: Pause of the laser treatment (rest day).

Treatment Protocol Elzarena



11.12.23 / 15th Treatment: No changes worthy of note.
Protocols applied: Repetition of protocols from 9th Treatment.

12.12.23 / 16th Treatment: No changes worthy of note.
Protocols applied: Repetition of protocols from 9th Treatment.

13.12.23 / 17th Treatment: No changes worthy of note, except for a slight warming of the affected area (the patient had no Ice-Vibes on this morning).
Protocols applied: Repetition of protocols from 9th Treatment.

14.12.23 - 18th Treatment: The area of the injury looks great, just a slightly swollen noted.
The patient was very relaxed during the Tissue repair treatment.
Protocols applied: Repetition of protocols from 9th Treatment.

15.12.23 / 19th Treatment: No changes worthy of note.
Protocols applied: Repetition of protocols from 9th Treatment.

16.12.23 / 20th Treatment: No changes worthy of note.
Protocols applied: Repetition of protocols from 9th Treatment.

17.12.23 – 26.12.23 21st Treatment: The lesion looks very good. Great progress. The swelling was not visible anymore, just a little bump is noticeable.
Protocols applied: Repetition of protocols from 9th Treatment.

Treatment Protocol Elzarena



27.12.23 – 4.1.24 22nd to 31st Treatment: Leg looks good, no changes during this time. All in one, Elzarena got more relaxed mentally since she had Laser Treatment and her back muscles next to the spine became softer and rounder. The patient likes the laser treatment and shows gratitude to the physiotherapist.

No other changes worthy of note, no swelling visible.

Protocols applied: Repeat of protocols from 9th Treatment.

5.1.2024: Second ultrasound scan at Dalchenhof with Dr. Gygax.

6.1.2024 until 8.2: Owners continue with the MyPet 2.0 laser and treated Elzarena daily with programs 1,2,3

9.2 until beginning of March: Owners treat 5 days per week with program 1,3,2 with two days break (based on the rule “do not overtreat”).

Priority principle

Priority Principle

Unwind
Rescue

Swelling/Edema
Inflammation
Infection
Muscle Spasm
Pain

Tissue Repair
Blood Flow

ROM
Strength

Priority Principle Methods are the combination of a dose or dose rate and one or more techniques

- Unwind = General pain/anxiety, scan along the spinal nerves
- Rescue = Injuries <48 hrs, repeat every hour, at injury
- Swelling = Proximal to distal at lymph sites, scanning
- Inflammation = Do not overtreat, treat at site of inflammation
- Muscle Spasm = Trigger Point Probe
- Pain = Mild, Moderate and Severe at site of injury
- Tissue Repair = Do not overtreat, once per day
- Blood Flow = Proximal arterial pulsation, increase BF and O2
- ROM = Utility Probe, multiple projections of the joint line
- Strength = Before exercise to the muscle belly

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Treatment Protocol – Suspensory Ligament



Challenge

Distal limbs are characterized by poor blood flow. Healing is greatly benefitted by consistent use of Multi Radiance laser therapy including **Photohemotherapy** which promotes vasodilation allowing more blood with oxygen and nutrients to reach the lesion and stimulate growth of well aligned collagen fibers which helps preserve their tensile strength. Vet prescribed MRM rental lasers help clients feel like part of the team!



1. Holistic Approach – Preparation for the treatment (Unwind Protocol)

The Unwind protocol is a safe and very effective way to reduce anxiety and acclimate the patient that may never have experienced laser therapy. Since MRM lasers are all super pulsed, eliminating any pain provocation from heat, it can be used, scanning slowly from withers to tail start. Typically, it takes less than 5 min to apply.

Unwind Protocol: Scan along the spinal nerve roots, using the large Dome Probe, from withers to tail start at 1000 Hz with a speed of 1cm/sec for 2-3 minutes.



2. Treatment according to Priority Principal – Reduce Swelling / Edema and inflammation

- Swelling / Edema: Open pathways for drainage using Ohshiro's method. Treatment Protocol: 1000-3000 Hz, 1 min
- Inflammation: Improving blood flow through vasodilation reduces tissue inflammation; key to promoting and accelerating tissue repair. Treatment Protocol: 50Hz for 1-2 minutes on, above and below the lesion. Always treat bilaterally for compensation issues
- Two sessions daily for first week is best, same time each day (separated by 4 hrs.) for an initial loading dose of light photochemical.



3. Rehab & Recovery - Assessment –

Ultrasound shows progress of filling in the hole caused by the lesion. Continuity of laser therapy makes a big difference in the time and the completeness of healing before the horse resumes full work.

- **Follow up** – Maintain continuity of treatments for optimal healing:
- Programm #2 and # 1 for tissue repair.
- Programm #4 for range of motion – 1 min each Ah Shi Point.
- Programm#1 for functional strength. -> the bigger the muscle groups are the higher the scanning time should be