Introduction

This study aims to prove the effectiveness of the association of shockwave therapy (SWT) with locomotor training (LT), on the recovery of patients with locomotor disorders due to musculoskeletal diseases, through articular pain attenuation and consequent decrease in lameness, and the possibility of improvement at functional level.

Materials and Methods

Thirty-two patients underwent a rehabilitation consultation, where the degree of pain (Colorado State University scale), degree of lameness (Millis & Mankin, 2014), muscle girth and range of motion were evaluated. In all cases the disease was diagnosed using radiography associated with a computerized stance analyzer. Neuroleptoanalgesia and a standard SWT protocol (osteoarthritis, nonunions or osteomyelitis) were applied to all patients. All patients underwent aquatic or terrestrial LT.

Protocol:

- **Neuroleptoanalgesia**

- **Shockwaves:**
  - **Probe:** 5 or 20 mm depending on the area to be treated
  - **Energy Level:** E4 to E6
  - **Number of pulses:** 800 to 1000
  - **Number of sessions:** 2

- **Resting period:** (5 days)

- **Locomotor Training:** (15 days)
  - **Hydrotherapy:** (It was prescribed a daily session of 10 minutes at 2 to 2,5 km/h, with the water line above the level of the treated area). Hydrotherapy was preformed under the form of underwater treadmill
  - **Treadmill:** (It was prescribed 2 daily session of 5 minutes at 2 to 2,5 km/h)

Results

After statistical analysis, it was not found relation between gender, breed, age or body condition score and the presence of pain or lameness. It was found relation between the application of SWT and the decrease of pain and lameness, as 75% of patients presented a decrease in pain after the first SWT session and 65,6% presented a decrease in lameness.

Conclusion

It is concluded that the association of SWT and LT is an effective approach to functional rehabilitation and can be applied to hemodynamically unstable patients. Obesity has a reduced influence on the results, due to the integration of the LT on the protocol.

References


