

RADIAL SHOCK WAVE THERAPY AS TREATMENT OF TARSOMETARSAL DEGENERATIVE JOINT DISEASE

COMPARISON OF THE EFFECTS OF TWO DOSAGES PROTOCOLS

Garcia Liñeiro, Jose Alberto⁽¹⁾, **Argibay Teresa**⁽²⁾, **Scipioni Hugo**⁽¹⁾, **Vaccaro Mariana**⁽¹⁾,

⁽¹⁾Área de Salud Y Producción equina. ⁽²⁾ Área de Bioestadística Facultad de Ciencias Veterinarias Universidad de Buenos Aires Republica Argentina

Introduction: Shock wave therapy has been used in multiple orthopedic conditions in sport horses. It had been described different medical, surgical and physiotherapy treatment in Tarsometarsal degenerative joint disease, including Shock wave therapy (punctual and diffuse technique -Garcia Liñeiro et al) with good results but there are different dosages applied up this moment.

Objective to compare two treatment in the same clinic condition and with the same technique but with difference in doses (impulses, frequency and bars)

Materials: from September 2004 to February 2009 16 jumper horses (11 Silla Argentino, 5 warmblood), affected by tarsometatarsal degenerative joint disease were selected for this experience. The diagnosis was protocolized considering 1) –Lameness 3/5 in the affected hind limb 2)-Tarsus Flexion test positive 3) Churchill test: positive 4)-Articular tarsometatarsal anesthesia positive (lidocaine2%). 5) - X ray diagnosis: marginal osteophytosis 6) -Evolution 14 month average 7) No treatment performed in the previous 60 days, 7) Swiss DolorClast Vet devices was used (EMS). Selected horses were grouped in two different groups. Group 1 dosage was 2000 impulses, freq 8 Hz, 2 bar, Group 2 dosage was 3000 impulses frequency 10, 3,5 bars. It was applied punctual and diffuse technique (Garcia Liñeiro et al) in both groups The evolutionary parameters considered were a) Horses checked at trot on hand, in hard and soft surface, and in a straight line and in circle, considering lameness classification in 5 degrees. b) Flexion test

response classified in 5 degrees c) Churchill test performed in every control. The affected horses were checked before the first shock wave application and re checked a week after the last shock wave application. The clinic examination was performed by three DMV in different moment, in order to minimize subjective observations.

Results Both group showed an improvement of clinics conditions after the different treatments in lameness, flexion test and Churchill Test. Statistics Exact Fischer Test was performed for 1) Lameness no significantly difference detected (($p=0,4667$), 2) Hock flexion test no significantly difference detected ($p=0,99$). 3) Churchill test no significantly difference detected ($p=0,4667$).

Conclusions after the analysis of this experience it may conclude that both shock wave treatment are equality effective in clinics effects, so it is the same to apply 2000 impulses frequency 8Hz, 2 bars, or to apply 3000 impulses frequency 10, 3,5 bars. This situation allows to DMV to choose the less aggressive technique in this clinic model.