

Focused Extracorporeal Shockwave Therapy

Recommended instructor to student ratio: 1:2

Category

3. Minor conscious intervention

Objective

To describe a safe and humane method for extracorporeal shockwave therapy in horses

Alternatives to animal use

No alternative

Equipment

1. Focused Extracorporeal Shockwave machine + attached handpiece (Storz Medical Duolith®)
2. 2 x standoffs (I and II)
3. Ultrasound gel

Safety and Risk considerations

Localized swelling at site of application can be seen. Provides significant pain relief – may mask lameness.

Drugs, chemicals or biological agents

Xylazine, Alcohol

Procedure

1. Sedation with xylazine if needed (100mg for a 450kg horse)
2. Horse to be restrained in the crush and attended by a competent handler
3. Area of interest brushed clean, clipped with electric clippers and prepared with alcohol and ultrasound gel
4. Shockwave machine brought into standing examination room at the VCC
5. Enter patient ID into shockwave tablet computer system
6. Select appropriate standoff for depth of penetration
 - a. No stand off for 0-125mm
 - b. Standoff I for 0-105mm
 - c. Standoff II for 0-30mm
7. Select appropriate frequency and energy (Hz) for tissue
8. Select total number of shocks to be administered
9. Begin extracorporeal shockwave therapy of selected anatomical region

Impact on wellbeing of animals

Animal Care

Calm handling and restraint by experienced horse-handlers

Pain Relief

Only as required

Reuse and repeated use

It is recommended that patients receive extra-corporeal shockwave therapy once every 1-2 weeks for 3 treatments

Qualification, experience or training necessary to perform procedure

Veterinary clinician with established and demonstrated competency – BVSc, BVMS, DVM

References and relevant links

(1)1. McClure S, Dorfmueller C. Extracorporeal shock wave therapy: Theory and equipment. Clinical Techniques in Equine Practice. 2003;2(4):348-57.

2. Revenaugh MS. Extracorporeal shock wave therapy for treatment of osteoarthritis in the horse: clinical applications. *The Veterinary clinics of North America Equine practice*. 2005;21(3):609-25, vi.
3. McClure S, Weinberger T. Extracorporeal shock wave therapy: Clinical applications and regulation. *Clinical Techniques in Equine Practice*. 2003;2(4):358-67.
(2, 3)