

## The Potential for Radial Shock Wave Therapy<sup>®</sup> in Equine Medicine

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### Introduction

Extracorporeal shock wave lithotripsy has been used in urology for 22 years. Recently, its use has been extended into orthopedics and other fields of human medicine. In 1999, Radial Shock Wave Therapy<sup>®</sup> (RSWT) was introduced for the successful treatment of insertion tendinopathies.

In veterinary medicine, first long-term results for RSWT of proximal suspensory desmitis were presented by Boening at the AAEP 2000 meeting.

Since January 2000, RSWT was used in more than 200 horses with musculoskeletal conditions in our practice to evaluate the potential of this new, non-invasive therapy for equine orthopedics.

### Materials and Methods

We used the Swiss DolorClast<sup>®</sup> Vet (EMS)



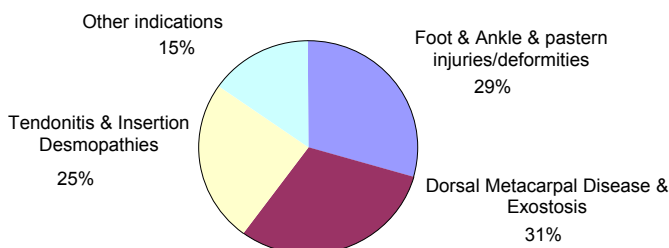
Horses were selected with arthritis, fractures, splints, shins, soft tissue injuries, back/sacroiliac pain exclusively. Patients must have had clinical symptoms for at least 3 months and at least one failed conservative treatment prior to RSWT.

In up to 5 sessions, 2,000 impulses per treatment were applied using p=36 psi and f=10 Hz.

Six months post RSWT, owners were interviewed to assess their horses. This subjective feedback was combined with post treatment lameness evaluation and diagnostic imaging.

### Results

As of October 2001, 85 horses with the following indications completed RSWT and were followed up over a period of six months.



### Foot/Ankle/Pastern Injuries and Deformities

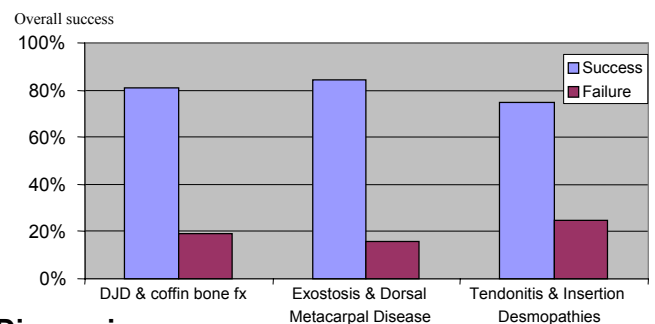
In 79% of the 25 horses (Øage: 15y.) with DJD or coffin bone fractures, good and excellent results were achieved in up to 4 sessions; 17 horses were back to full work and 13 were competing again. Most cases showed significant bone remodeling. Our clients were “thrilled” about these results. Five horses failed.

### Shins and Splints

46% of the 26 horses (Øage: 7y.) with shins or splints were sound; another 38% had clearly reduced pain. 21 horses were back to work and 18 back to competition. 16% showed only minor improvements. Significant bone remodeling, radiographic and scintigraphic changes were seen in 22 of the 26 horses.

### Tendonitis and Insertion Desmopathies

A success rate of 75% was achieved with 21 horses (Øage: 9.7y.) with SDFT or HSD: 14 horses were sound 30 days post RSWT and remained sound over 6 months; 2 horses were almost painfree and returned to work and sports. 25% showed no significant pain reduction.



### Discussion

RSWT on 3 DSP, 3 painful sacroiliac, 2 drainages in the R mandible and 2 acute inflammations on the hock was successful - whereas 3 fractures of the MC3 showed only mixed results.

### Conclusion

Radial Shock Wave Therapy offers a successful, non-invasive treatment of lameness of a variety of chronic disorders of the musculoskeletal system in the horse.

We recommend the Swiss DolorClast Vet for the treatment of degenerative joint disease, fractures, dorsal metacarpal disease, exostosis, tendonitis, insertion desmopathies and back/sacroiliac pain.