

ESW FOR PLANTAR FASCIITIS IN PATIENTS WITH TYPE 2 DIABETES

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Background

- Patients with type 2 diabetes may experience heel pain and plantar fasciitis. This may arise from factors unique to these patients
- Altered hind foot mechanics/heel cord tightness
- Increased weight/obesity
- Alterations in the heel pad
- Subtle to overt neurovascular changes

Background

- Risk of infection from cortisone injections
- Risk of infection and altered wound healing with surgery
- What can be done to avoid such risks if standard therapeutic interventions fail?

Background

- Patients with diabetes have been excluded from FDA approved ESW studies
- We wished to evaluate risk factors and outcomes in these patients
- The study was non-blinded
- No placebo treatments were done

Methods

- No open wounds within six months.
- No significant neuropathy
(all had Semmes-Weinstein testing)
- No significant bone or joint changes

Methods

- Evaluation of pain with dolorimeter
- Pain after first walking in AM
- Pain with activities of daily living
- VAS used for pain evaluations

Methods

- Pain scores recorded at baseline
- Pain scores recorded pre-treatment
- Pain scores recorded at six and twelve weeks after treatment

Methods

- Electrohydraulic ESW (Ossatron)
- Surgicenter
- Conscious sedation or general anesthesia
- Multidirectional treatment - plantar surface and medial to lateral
- Continual foot manipulation
- Coverage of as large an area of involved fascia as possible

Methods

- At least a 50% reduction in pain score required for “success” in each of the three categories
- Excellent (3/3)
- Good (2/3)
- Fair (1/3)
- Poor (0/3)

Results

- Sixty patients initially evaluated
- Eleven excluded
- Three for osseous or joint changes
- Three failed Semmes-Weinstein testing (five or more sites)
- Five failed to have a VAS greater than five in all three pain categories

Results

- 21 men (one bilateral)
- 26 women (three bilateral)
- Average age 43.3 years
- All were considered overweight, but none were morbidly obese
- 15 diet controlled only
- 32 diet plus oral hypoglycemics

Results

- No anesthesia complications
- No rupture of the plantar fascia
- No permanent neurologic changes
- No skin changes

Results

- 15 patients (16 heels) attained a VAS=0 in all three pain categories
- The composite pain score (of all three pain categories) decreased from 8.3 to 2.9

Results

- Excellent - 15 heels
- Good - 19 heels
- Fair - 9 heels
- Poor - 8 heels

Results

- Overall patient satisfaction rate was 67%

Conclusion

- ESW should be considered a reasonable treatment alternative in patients with concomitant plantar fasciitis and type 2 diabetes.
- No significant complications occurred to the skin or neurovascular tissues

Acknowledgement

- The authors wish to thank the
Skeletal Educational Association,
D.A. Davis,
RN and
Tissue Regeneration Technologies
for contributions to this study