

26. ESWT in foot navicular stress fracture of a high performance

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Device and producing company: ORTHOGOLD 100 – TRT (USA) and MTS (Germany)

Introduction: We present the case of a 16-year- old competitive Olympic female gymnast with a history of foot problems. After athletic training she experienced pain on the medial side of her right foot and was initially diagnosed with Posterior Tibial Tendon Tendinitis after normal X-rays. She received physical therapy and medication for 3 months with no results. She came to our foot and ankle clinic and after a physical evaluation we suspected a deeper bone or joint pathology and ordered an MRI. The results clearly indicated a navicular bone stress fracture.

Methods: We proceeded to treat the patient with ESWT, using a single session under sedation of 2000 pulses at 0.25 mJ/mm² focused waves and a frequency of 4 Hz. The procedure was done under X-ray fluoroscopy from dorsal to plantar with an Orthogold 100 device and a OE050 focused applicator. After the procedure, the patient was in a cast for 6 weeks. After removing the cast, the patient underwent physical therapy and muscle balance rehabilitation.

Results: Both pain and motion improved, and the control MRI showed complete healing of the lesion.

Discussion: Even though this is a case report, we found ESWT to be the crucial variable for recovery in this patient's final outcome. With no complications related to the procedure, it was an excellent option for this high performance athlete, enabling full recovery of her symptoms after two months of treatment.

Conclusion: We are able to recommend ESWT in these rare cases of foot stress fractures.