

## **Radial Shockwave Therapy (RSWT) for intractable Achilles tendinosis: A pilot study**

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Introduction: No controlled and randomized evidence is available regarding any kind of conservative or surgical therapy for Achilles Tendinosis. 30 % (21/70) of the athletes in the German Olympic track & field team at the Olympic games in Sydney 2000 suffered from Achilles tendinosis. In the last decade extracorporeal shockwave therapy was introduced for effective treatment of insertional tendinoses like tennis elbow or plantar fasciitis (Lohrer et al. 2001, Rompe et al. 2002). The objective of this study was therefore to evaluate the effectiveness of Radial Shockwave Therapy® (RSWT) on Achilles Tendinosis in recreational and professional athletes. Material and methods: 40 athletes with Achilles tendinosis were included in this investigation. These patients had already failed to respond after conservative therapy, with at least 2 different treatment approaches for at least 3 months before proceeding to RSWT. Patients were treated in five sessions with 2,000 impulses each using the Swiss DolorClast® RSWT device. The pain center was localized by biofeedback. Follow up was done at 1, 4, 12, 26 and 52 weeks after the end of the treatment. 33 (82,5 %) of the patients finished the study. Results: All evaluation measures improved significantly (Table,  $p < 0.001$ ).

Load induced pain (VAS)	7,8 + 1,7	2,2 + 2,5	0,7 + 1,6
Pain threshold (Newton)	14,1 + 6,6	27,5 + 10,9	41,9 + 11,6
30 Newton pressure pain (VAS)	6,7 + 3,2	2,6 + 3,6	0,9 + 2,6
Pain-free running time (min)	14,4 + 18,5	63,0 + 37,0	90,0 + 43,0

Discussion: RSWT seems to be an effective treatment modality for recalcitrant Achilles tendinosis. Further controlled and randomised trials are mandatory to confirm these results.