

Shockwave treatment for medial tibial stress syndrome in athletes; a prospective controlled study

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Abstract

Objective The purpose of this study was to describe the results of two treatment regimens for medial tibial stress syndrome (MTSS); a graded running programme and the same running programme with additional shockwave therapy (extracorporeal shockwave therapy; ESWT).

Design A prospective observational controlled trial.

Setting Two different sports medicine departments.

Participants 42 athletes with MTSS were included.

Intervention Patients from one hospital were treated with a graded running programme, while patients from the other hospital were treated with the same graded running programme and focused ESWT (five sessions in 9 weeks).

Main Outcome Measures Time to full recovery (the endpoint was being able to run 18 min consecutively without pain at a fixed intensity).

Results The time to full recovery was significantly faster in the ESWT group compared with the patients who only performed a graded running programme, respectively 59.7 ± 25.8 and 91.6 ± 43.0 days ($p=0.008$).

Conclusions This prospective observational study showed that MTSS patients may benefit from ESWT in addition to a graded running programme. ESWT as an additional treatment warrants further investigation in a prospective controlled trial with the addition of randomisation and double blinding.