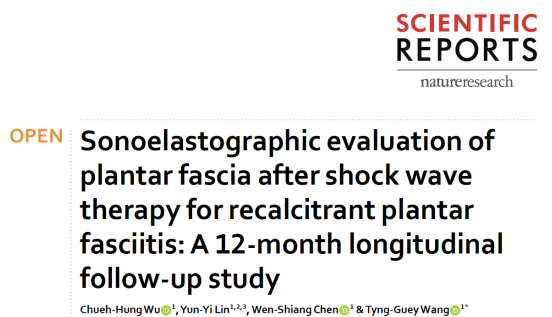


The series of great studies in 2020 continues.

Based on 30 patients the basics of ESWT effects on the plantar fascia were proven

The research group led by Chueh-Hung Wu from the National Taiwan University in Taipei is currently publishing study on the Shockwave treatment of plantar fasciitis. In this prospective assessor-blind longitudinal follow-up study, they aimed to evaluate elasticity changes of the plantar fascia after ESWT by using strain sonoelastography. It must be considered an extremely positive study for our system.

The study is freely downloadable. Enclosed you will find a version of the complete study.



Extracorporeal shockwave therapy (ESWT) is proposed to be effective in reducing pain and improving functional outcome in chronic plantar fasciitis. However, no long-term reports exist on the changes in plantar fascia (PF) elasticity after ESWT. We aimed to evaluate the changes in PF stiffness in patients with plantar fasciitis undergoing ESWT. The visual analogue scale (VAS, 0–100) was used for evaluating heel pain severity. B-mode sonography and strain sonoelastography were used for evaluating the PF thickness and stiffness. The sonoelastogram was analyzed using hue histogram analysis (value: 0–255, from stiffer to softer). All evaluations were recorded before ESWT, and 1 week, 1 month, 3 months, 6 months, and 12 months after ESWT. Repeated measures ANOVA was used to compare pain VAS, PF thickness, and PF hue value at different follow-up time-points. Twenty-two participants (8 men, 14 women) completed all measurements for 12 months. The VAS of heel pain, PF thickness, and PF hue values at pre-ESWT, and 1-week, 1-month, 3-month, 6-month, and 12-month evaluations after ESWT were 62.4 ± 4.2 , 49.3 ± 5.8 , 38.3 ± 5.7 , 27.9 ± 5.3 , 18.9 ± 4.7 , and 13.2 ± 3.0 ($p < 0.01$ in all measurements post ESWT versus pre-ESWT); 5.57 ± 0.22 mm, 5.64 ± 0.18 mm, 5.45 ± 0.24 mm, 5.37 ± 0.20 mm, 5.08 ± 0.20 mm, and 4.62 ± 0.15 mm ($p < 0.01$ at 6-month; otherwise $p > 0.05$); and 24.5 ± 2.4 , 35.2 ± 3.1 , 31.0 ± 4.1 , 30.5 ± 3.9 , 21.4 ± 2.1 , and 15.9 ± 1.6 ($p < 0.01$ at 1-week and 6-month; otherwise $p > 0.05$), respectively. In conclusion, the heel pain intensity and PF thickness reduced gradually over 12 months after ESWT. The PF stiffness decreased during the first week and increased thereafter; at the 12-month follow-up, stiffness was more than at pre-ESWT.



...Conclusion:

After ESWT (with the piezoelectric R.Wolf system) for plantar fasciitis, heel pain intensity decreased gradually, while the PF thickness became thinner at the 12-month follow-up. The PF became softer at 1 week of follow-up and regained stiffness thereafter, finally becoming stiffer than pre-ESWT at 12 months of follow-up....

