**Article Full Title**

Manual Therapy for Plantar Heel Pain

**Author Names**

Pollack, Y., Shashua, A., Kalichman, L.

**Reviewer Name**

Jasmin Flores, SPT

**Reviewer Affiliations**

Duke University School of Medicine, Doctor of Physical Therapy Division

**Paper Abstract**

Background: Manual therapy employed in the treatment of plantar heel pain includes joint or soft tissue mobilizations. Efficacy of these methods is still under debate.

Aims: To determine whether manual therapy, consisting of deep massage, myofascial release or joint mobilization is effective in treating plantar heel pain.

Methods: A critical review of all available studies with an emphasis on randomized controlled trials (RCTs) was performed. PubMed, PEDro, and Google Scholar databases were searched for keywords relating to plantar heel pain, joint, and soft tissue mobilizations. There were no search limitations or language restrictions. The reference lists of all retrieved articles were searched. The PEDro score was used to assess the quality of the reviewed papers.

Results: A total of six relevant RCTs were found: two examined the effectiveness of joint mobilization on plantar heel pain and four the effectiveness of soft tissue techniques. Five studies showed a positive short-term effect after manual therapy treatment, mostly soft tissue mobilizations, with or without stretching exercises for patients with plantar heel pain, compared to other treatments. One study observed that adding joint mobilization to the treatment of plantar heel pain was not effective. The quality of all studies was moderate to high.

Conclusions: According to reviewed moderate and high-quality RCTs, soft tissue mobilization is an effective modality for treating plantar heel pain. Outcomes of joint mobilizations are controversial. Further studies are needed to evaluate the short and long-term effect of different soft tissue mobilization techniques.

**NIH Risk of Bias Tool**

Quality Assessment of Controlled Intervention Studies

**Was the study described as randomized, a randomized trial, a randomized clinical trial, or an RCT**

Yes

**Was the method of randomization adequate (i.e., use of randomly generated assignment)?**

No

**Was the treatment allocation concealed (so that assignments could not be predicted)?**

Cannot Determine, Not Reported, or Not Applicable

**Were study participants and providers blinded to treatment group assignment?**

Cannot Determine, Not Reported, or Not Applicable

**Were the people assessing the outcomes blinded to the participants' group assignments?**

Cannot Determine, Not Reported, or Not Applicable

**Were the groups similar at baseline on important characteristics that could affect outcomes (e.g., demographics, risk factors, co-morbid conditions)?**

No

**Was the overall drop-out rate from the study at endpoint 20% or lower of the number allocated to treatment?**

Cannot Determine, Not Reported, or Not Applicable

**Was the differential drop-out rate (between treatment groups) at endpoint 15 percentage points or lower?**

Cannot Determine, Not Reported, or Not Applicable

**Was there high adherence to the intervention protocols for each treatment group?**

Cannot Determine, Not Reported, or Not Applicable

**Were other interventions avoided or similar in the groups (e.g., similar background treatments)?**

Cannot Determine, Not Reported, or Not Applicable

**Were outcomes assessed using valid and reliable measures, implemented consistently across all study participants?**

Cannot Determine, Not Reported, or Not Applicable

**Did the authors report that the sample size was sufficiently large to be able to detect a difference in the main outcome between groups with at least 80% power?**

Cannot Determine, Not Reported, or Not Applicable

**Were outcomes reported or subgroups analyzed prespecified (i.e., identified before analyses were conducted)?**

Cannot Determine, Not Reported, or Not Applicable

**Were all randomized participants analyzed in the group to which they were originally assigned, i.e., did they use an intention-to-treat analysis?**

Cannot Determine, Not Reported, or Not Applicable

**Were the included studies listed along with important characteristics and results of each study?**

No

**Key Finding #1**

In a study where the control group only received a self-stretching exercise protocol and the intervention group received the same exercise protocol and trigger points pressure release, the intervention group experienced a greater reduction in pain and an improvement in physical function.

**Key Finding #2**

Patients in the intervention group who received myofascial release for gastrocnemius, soleus, and plantar myofascial structures for plantar heel pain demonstrated a significant reduction in pain compared to the control group who received sham ultrasound.

**Key Finding #3**

No significant difference was found between the intervention group who received joint mobilizations (subtalar traction, a talocrural dorsal glide, subtalar lateral glide, and a first tarsometatarsal joint dorsal glide) combined with stretching and the control group who received a steroid injection for plantar heel pain.

**Key Finding #4**

**Please provide your summary of the paper**

In the studies that were reviewed, manual therapy with or without stretching exercises was effective for patients with plantar heel pain. When comparing joint mobilizations and soft tissue mobilizations, patients with plantar heel pain showed a greater reduction in pain and improvement in physical function. Limitations included having a variety of treatment methods in the studies that were used and long-term effects were not evaluated. Finally, even though soft tissue mobilizations appear to be effective, it is still under debate and more research studies are needed.

**Please provide your clinical interpretation of this paper. Include how this study may impact clinical practice and how the results can be implemented.**

It is difficult to conclude whether or not manual therapy is beneficial for those with heel pain because of the variability of treatment methods that were used for this study. However, focusing on the studies individually did show that soft tissue mobilizations were effective for patients that have plantar heel pain. There was no harm done to the patients when these techniques were implemented, so it may be beneficial to use for future patients with this diagnosis and they can possibly have a positive outcome out of it. Finally, based on the studies that were used, soft tissue mobilizations seem to be more effective in patients with plantar heel pain compared to joint mobilizations.