

A comparison of the effects of connective tissue massage and classical massage on low back pain - A Randomized controlled trial

Peter Viklund¹, Tim Hustad¹, Filip Danielsson¹, Eva Skillgate^{1, 2}.

¹ Scandinavian College of Naprapathic Manual Medicine, Kräftriket 21A 11419 Stockholm Sweden. Tel: +46 08-16 01 20, Fax: +46 08-33 55 18. peter.viklund@nph.se

² Karolinska Institutet, Musculoskeletal & Sports Injury Epidemiology Center, Box 210, 171 77 Stockholm, Sweden.

BACKGROUND: Many practitioners believe fascia plays a role in non-specific low back pain (NSLBP), and that manual treatment could help restore the physiological state of the fascia, but there is limited knowledge about how these therapies affect human tissue in general. The objective of this trial was to compare the effects of connective tissue massage and classical massage in the lower back on patients with non-specific low back pain, regarding changes in pain, range of motion in the hips and lumbar spine, and mechanical soft tissue property changes.

METHODS: Forty six patients with current non-specific low back pain lasting for at least one week were included in this randomized controlled trial. The interventions were connective tissue massage (CTM) along the iliac crest, and classical massage (CM) in the lower back for three and a half minutes. Pain, hip and lumbar range of motion, and changes in mechanical soft tissue properties (stiffness and elasticity) were measured at baseline, directly after and 10 minutes after treatment. Stiffness and elasticity was measured in both sides of the back, and on the sacrum with a MyotonPRO device.

RESULTS: The interventions gave a similar amount of clinically relevant pain reduction. There were no differences between groups regarding changes in ROM. There was a difference between groups in stiffness, generally increasing with the CTM, while decreasing with CM. Elasticity decreased in the left side of the back with CTM, while increasing on the right side with CM. Sacral elasticity first decreased, then increased with CTM.

CONCLUSION: This trial indicates that CTM may decrease pain in NSLBP patients, as efficiently as CM within a short time frame. CTM seems to affect dermomyofascial tissue differently than CM, although more research is needed to conclude the clinical relevance of these differences.

Ethical consideration: This experimental study was performed on humans. Ethical approval was granted by the Scandinavian College of Naprapathic Manual Medicine ethical board prior to the study. Investigations were carried out to a high ethical standard.