The results were also deemed clinically significant for the CST and TS group.

This study is consistent with research showing the benefit of osteopathic manipulative treatment (OMT) in reducing symptoms in patients with somatosensory tinnitus. Although this study was a pilot study, results suggest that MTU and OMT may be beneficial in managing conditions like tinnitus.

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Reference

Manual Therapy Shown To Improve Diabetic Foot Ulcer Healing


Physical therapy researchers in Thailand and Malaysia studied the effects of connective tissue manipulation on patients with diabetic foot ulcer. Connective tissue manipulation is a manual therapy technique developed in Germany in the 1930s that uses fingertip strokes to stretch both elastic and viscous components of tissues in therapeutic reflex zones that share the same segmental innervations with the connective tissue zones. This technique stimulates parasympathetic function, resulting in reflex vasodilation and increased circulation to the peripheral extremities. For this intervention, contact was made over the arterial zone of the legs, which is around the sacrum and borders of the iliac crest. From the osteopathic perspective, this intervention appears to be an application of somatovisceral reflex theory and the manually guided forces most similar to the osteopathic manipulative procedures of the Fascial Distortion Model.

Inclusion criteria for this study included fasting blood glucose ≥110 mg dL⁻¹, blood glucose 2 hours after glucose load ≥180 mg dL⁻¹, and the presence of a noninfected diabetic foot ulcer on the plantar aspect of the foot with Wagner classification of grade 1 and 2 (skin ulcer). Exclusion criteria included patients with current hemodialysis, surgical history of lower limb revascularization, bleeding disorders, glycosylated hemoglobin more than 9%, and the use of immunosuppressant agents.

Twenty patients with a diagnosis of type II diabetes mellitus completed the study. Each participant received conventional treatment for diabetic foot ulcer, and 10 received connective tissue manipulation, in addition to the conventional treatment, twice per week for 6 weeks.

The outcome measures, which were collected before and after the interventions, were percentage of wound healing area and bacterial colonization count. Baseline percentage of wound healing area and bacterial colonization count were not significant between groups. Although paired t tests showed a significant percentage of improvement in wound healing area for both groups after 6 weeks (P<.05), the percentage of wound healing area was 57% in the connective tissue manipulation group and 28% in the control group. Likewise, the bacterial colonization count in both groups showed significant improvement (P<.05).

However, the connective tissue manipulation in addition to conventional treatment led to a 6.4% mean reduction of bacterial burden on the wound surface compared with only 3.5% reduction in the group that received conventional treatment only. This bacterial colonization count reduction in the group that received connective tissue manipulation was significantly greater and clinically significant. These results suggest...
that osteopathic manipulative treatment may be applicable in the management of diabetic foot ulcer.

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Reference


Ineffectiveness of Spinal Manipulation for Acute Musculoskeletal Thoracic or Chest Wall Pain


Few randomized clinical trials (RCTs) provide guidance on the most effective management for musculoskeletal thoracic spine or chest wall pain. Canadian researchers performed a rigorous systematic review of RCTs, cohort studies, and case-control studies that examined nonpharmacologic treatments for managing acute mechanical thoracic spine and chest wall pain. Contrary to previous recommendations,¹,² the study determined that manual therapy provided clinically irrelevant pain reduction in patients with thoracic pain.

Inclusion criteria were studies published in English, between 1990 and 2015, with a subsample of at least 30 participants per treatment arm for RCTs or 100 for cohort or case-controlled studies. Authors excluded visceral or systemic disease–related pain studies. Independent reviewers used the Scottish Intercollegiate Guidelines Network criteria to assess the risk of bias, calculated relative risk, strength of association between interventions and outcomes, and intervention effectiveness by measuring mean changes between groups.

Researchers assessed more than 8000 potentially relevant articles and found 2 appraisable studies. One of the studies found a small statistically significant—but not clinically important—impact of manual physiotherapy on reducing acute thoracic spinal pain when comparing the effectiveness of thoracic spinal manipulation, needle acupuncture, and placebo electrotherapy in the management of thoracic spine pain. The other study, which compared a multimodal program of care with a single education session in the management of musculoskeletal chest wall pain, suggested that chiropractic spinal manipulation and soft tissue therapy have the same effect in reducing acute chest wall pain as an education session.

The researchers concluded that manual therapies are not effective for acute musculoskeletal thoracic spine or chest wall pain management. A high-quality RCT subsequently substantiated the findings of this systematic review.¹

The osteopathic medical profession needs rigorously designed, low bias, large cohort studies, similar to those that support the American Osteopathic Association’s recently updated osteopathic manipulative treatment guidelines for low back pain,³ to validate reimbursement claims for treating patients with acute thoracic spine and chest wall pain conditions with osteopathic manipulative treatment.

References