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Osteopathic manipulative treatment in obese patients with chronic low back pain: A pilot study.

[Vismara L](#), [Cimolin V](#), [Menegoni F](#), [Zaina F](#), [Galli M](#), [Negrini S](#), [Villa V](#), [Capodaglio P](#).

Orthopaedic Rehabilitation Unit and Clinical Lab for Gait Analysis and Posture, Ospedale San Giuseppe, Istituto Auxologico Italiano, IRCCS, Via Cadorna 90, I-28824 Piancavallo (VB), Italy; SOMA, Istituto Osteopatia Milano, Italy.

Abstract

BACKGROUND: Obesity is frequently associated with various musculoskeletal disorders including chronic low back pain (cLBP). Osteopathy is a discipline emphasizing the conservative treatment of the disease in an olistic vision. We designed a randomized controlled study to investigate whether Osteopathic Manipulative Treatment (OMT) combined with specific exercises (SE) is more effective than SE alone in obese patients with cLBP.

METHODS: nineteen obese females with cLBP, randomized into 2 groups: SE + OMT and SE were studied during the forward flexion of the spine using an optoelectronic system. A biomechanical model was developed in order to analyse kinematics and define angles of clinical interest.

OUTCOME MEASURES: kinematic of the thoracic and lumbar spine and pelvis during forward flexion, pain according to a visual analogue scale (VAS), Roland Morris Disability Questionnaire and Oswestry Low Back Pain Disability Questionnaire.

RESULTS: significant effects on kinematics were reported only for OMT + SE with an improvement in thoracic range of motion of nearly 20%. All scores of the clinical scales used improved significantly. The greatest improvements occurred in the OMT + SE group.

CONCLUSIONS: combined rehabilitation treatment including Osteopathic Manipulative Treatment (OMT + SE) showed to be effective in improving biomechanical parameters of the thoracic spine in obese patients with cLBP. Such results are to be attributed to OMT, since they were not evident in the SE group. We also observed a reduction of disability and pain. The clinical results should be considered preliminary due to the small sample size.

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