

The effect of mobilization with movement on pain and function in patients with knee osteoarthritis: a randomized double-blind controlled trial

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Setting the scene:

Few studies have investigated the effects of mobilization with movement (MWM) in patients with knee osteoarthritis (OA) compared to other procedures. Sham procedures are generally more appropriate control than using no or usual treatments. Moreover, studies investigating the widespread hypoalgesic effects of MWM in patients with knee OA are lacking. The aim was to investigate the effect of MWM on function and pain in patients with knee OA compared to sham MWM.

What did they do?

Forty adult patients with knee OA of grade II and above were recruited to receive either MWM treatment or sham MWM for the knee. MWM techniques were performed using a sustained medial, lateral, anterior, posterior or rotation glide of the tibia during active knee flexion and extension. The glide direction that relieved pain to the lowest level and improved knee range most was selected as the glide for treatment. If the movement was not painful, overpressure was added at the end range. The glide direction was examined in weight-bearing if there was no pain in the supine position. If several glide directions showed similar effects in the supine position, these tests were performed in a weight-bearing position to determine the most effective glide direction. In the treatment group, the therapist applied the glide force on the tibia with the knee in mid-range. Then this force was maintained while the patient was flexing and extending the knee to full range. Overpressure was performed at the end range. The MWM treatment technique was repeated 10 times for three sets. In the sham group, the patients were handled similarly to those in the treatment group, but they did not take the glide of direction. Alternatively, the therapist's hands were lightly touching the knee skin without pressure, one hand on the tibia and one on the femur. Active knee flexion and extension movements, however, were performed 10 times for three sets.

Takeaway message:

MWM provided superior benefits over sham MWM in terms of local and widespread pain, physical function (walking), knee flexion and extension muscle strength and knee flexion ROM for at least 2 days in patients with knee OA.