

Manual therapy and interferential treatment alone or in combination improve disability, pain, and quality of life in patients with acute low back pain

Clinical Bottom Line(s):

1. For patients with acute low back pain, both manual therapy and interferential therapy alone or in combination result in improvements immediately after treatment, at 6 months, and at 12 months in functional disability, pain, quality of life, analgesic medication consumption, and exercise participation.

Citations(s):

Hurley, D.A., et al., *A randomized clinical trial of manipulative therapy and interferential therapy for acute low back pain.* Spine, 2004. **29**(20): p. 2207-16.

Three/four part clinical question.

Does manipulation reduce pain in adult males with acute low back pain?

The study:

Prospective, randomized

The study patients:

18-65 years old, LBP with or without radiation into buttock and/or 1-2 lower extremities, 4-12 weeks duration of symptoms

All patients: received Back Book and 4-10 treatments over 8 week period

Manual Therapy Group: (N = 80): mobilization or manipulation techniques to lumbar spine described by Maitland or Cyriax

Interferential Treatment Group: (N = 80): 30 minute treatment, carrier frequency = 3.85 kHz, beat frequency = 140 Hz, pulse duration = 130 µs, "spinal nerve root electrode placement method" with 2 electrodes

Combined Therapy Group: (N = 80): manual therapy first, interferential treatment second

The evidence (italicized font indicates significant difference for the outcome at that time point, dashed line indicates no significant difference for that outcome):

	Manual Therapy	Interferential	Combined
Roland-Morris Disability Questionnaire	<i>0/post-tx, 0/6 wks, 0/12 wks[†]</i>	<i>0/post-tx, 0/6 wks, 0/12 wks</i>	<i>0/post-tx, 0/6 wks, 0/12 wks</i>
VAS (post-tx, 6 mos, 12 mos)*			
Average back pain	-20, -17, -18	-21, -25, -26	-25, -20, -26
Average leg pain	-13, -12, -10	-13, -13, -14	-14, -12, -18
Worst back pain	-20, -19, -24	-24, -28, -30	-27, -24, -34
Worst leg pain	-14, -10, -13	-14, -14, -16	-14, -12, -23
McGill Pain Questionnaire	<i>0/post-tx, 0/6 wks, 0/12 wks</i>	<i>0/post-tx, 0/6 wks, 0/12 wks</i>	<i>0/post-tx, 0/6 wks, 0/12 wks</i>
EQ-5D	<i>0/post-tx, 0/6 wks, 0/12 wks</i>	<i>0/post-tx, 0/6 wks, 0/12 wks</i>	<i>0/post-tx, 0/6 wks, 0/12 wks</i>
Short-Form 36 (Physical Functioning, Role-Physical, Bodily Pain, Vitality, Social Functioning, Role-Emotional, Mental Health)	<i>0/post-tx, 0/6 wks, 0/12 wks</i>	<i>0/post-tx, 0/6 wks, 0/12 wks</i>	<i>0/post-tx, 0/6 wks, 0/12 wks</i>
Short-Form 36 General Health	-----	-----	-----
LBP recurrence at 12 months	77%	69%	64%
Work absenteeism at 12 months			
None	79%	78%	82%
< 30 days	9%	14%	6%
> 30 days	12%	8%	12%
Participation in exercise at 12 months	73%	77%	72%
Post-tx analgesic med use	56%	45%	48%
12 month analgesic med use	46%	42%	32%

[†] Indicates significance between that pair of time points

* All figures are compared to baseline

Comments:

1. No control group – what is the effect of natural history?
2. Broad definition of manual therapy.
3. Complicated study with many outcomes and time points. No p-values given.
4. No classification of low back pain patients.
5. High drop-out rate.