SUPPLEMENTARY MATERIAL

Manual trigger point treatment in migraine management: a scope review

Roberto Tedeschi

Department of Biomedical and Neuromotor Sciences, Alma Mater Studiorum, University of Bologna, Italy

Supplementary Table 1. Main characteristics of the five experimental studies.

Author, Year	Article Title			Methods	Results
Ghanbari A et al, 2015	Migraine responds better to a combination of medical therapy and trigger point management than routine medical therapy alone			Forty-four participants were divided into two groups: one received positional release therapy (PRT) alongside medication, and the other received medication only. Variables measured included headache details, number of acute medications, and trigger point sensitivity. Intervention involved five PRT sessions, while the medication-only group received standard medical therapy.	Both groups experienced significant reductions in headache frequency, intensity, duration, and acute medication usage. . The PRT-medication group showed a significant decrease in the sensitivity of trigger points. Both groups demonstrated increased cervical range of motion, with some motions showing greater improvement in the PRT-medication group, especially after 4 months of follow-up in terms of headache frequency, intensity, duration, medication usage (tablet count), and specific cervical range of motions.
Bevilaqua-Grossi et al., 2016	Additional Effects of a Physical Therapy Protocol on Headache Frequency, Pressure Pain Threshold, and Improvement Perception in Patients With Migraine and Associated Neck Pain:			Fifty patients diagnosed with migraine and associated neck pain, participants were randomly divided into two groups: a control group that received standard acute medication and an intervention group that received manual therapy and stretching	Both the control and intervention groups showed a significant reduction in headache frequency after treatment, with no significant difference between them. The intervention group, however, demonstrated

Author, Year	Article Title			Methods	Results
	A Randomized Controlled Trial			maneuvers lasting 50 minutes. Initial assessments included evaluating headache frequency, pain threshold, presence of allodynia, symptoms of depression, migraine impact, and neck disability. The intervention group received eight sessions of physical therapy over four weeks, in addition to standard migraine treatment. The physical therapy protocol included cervical mobilization exercises, muscle strengthening exercises, and muscle relaxation techniques.	improved pain threshold and perceived well-being compared to the control group. No notable side effects or complications were reported during treatment. The study also suggested that physical therapy can reduce nociceptor activity in the cranio-cervical region but did not enhance reduction in migraine frequency and intensity by conventional treatments.
Yedikardachian D et al., 2017	Migraine prophylaxis with trigger point therapy and lymphatic drainage : A pilot study			Block-Randomization used to assign patients to three groups that received: trigger point therapy (TPT); TPT plus manual lymphatic drainage (LD); neither TPT nor LD. Interventions were conducted once a week for 6 weeks. TP-Therapy performed pericranially for 30 minutes followed by rest.	Combination therapy (TPT+LD) was more effective than TPT alone. TPT+LD reduced migraine and headache days as compared to control group. TPT+LD rand TPT reduced the numbers of acute medications. Patient satisfaction with conventional pain therapy was low.
Gandolfi M et al. 2018	Does myofascial and trigger point treatment reduce pain and analgesic intake in patients undergoing onabotulinumtoxinA injection due to chronic intractable migraine?			Cervicothoracic manipulative treatment. Transcutaneous electrical nerve stimulation (TENS) in the upper trapezius. Twenty-two patients were randomized to receive manipulative or TENS intervention.	Manipulation treatment was more effective in reducing the number of acute medications.
Espí-López GV et al., 2018	Effect of Soft Tissue Techniques on Headache Impact, Disability, and Quality of Life in Migraine Sufferers: A Pilot Study			Soft tissue techniques based on myofascial trigger point therapy, stretching and suboccipital soft tissue inhibition (MTP+S+STI) was compared to control group (non-specific manual	MTP+S improved impact, disability, frequency, and intensity of migraine. STI further enhanced the treatment effect. Both groups showed significant

Author, Year	Article Title			Methods	Results
				therapy). Assessments and treatments were performed by the same therapist. Patients were blinded to group allocation. Data analysis was performed by a different researcher	reductions in headache impact and disability, and larger effect sizes in MIDAS scores and SF-36 mental subscale.

Supplementary Table 2. Combined Assessment of Study Quality Using PEDro and ROB 2 Scales. Summary of the key characteristics and quality assessments of the studies included in the review. The columns provide information on the number of participants, the type of intervention used, any co-treatments provided, the follow-up duration, outcome measures, and the quality of each study as evaluated by the PEDro scale and RoB 2 tool. All studies were randomized controlled trials (RCTs).

Author and Year	Participants (n)	Intervention	Control	Follow-up	Outcome Measures	PEDro Score	RoB 2 Assessment
Ghanbari et al., 2015	44	Positional release therapy (PRT) + medication	Medication only	1, 2, and 4 months	Headache frequency, intensity, medication use, cervical ROM	4	Unclear risk of bias
Bevilaqua-Grossi et al., 2016	50	Physical therapy protocol + standard migraine treatment	Standard migraine treatment	4 weeks	Headache frequency, pain threshold, neck disability	5	Low risk of bias

Yedikardachian et al., 2017	45	Trigger point therapy (TPT) + manual lymphatic drainage (LD) or + TPT alone	None	6 weeks	Migraine attacks, headache days, pain medication use	4	Unclear risk of bias
Gandolfi et al., 2018	22	Myofascial and trigger point treatment + onabotulinumtoxinA	TENS in upper trapezius	Not reported	Pain intensity, analgesic use	7	Low risk of bias
Espí-López et al., 2018	40	Myofascial trigger point therapy, stretching and suboccipital soft tissue inhibition (MTP+S+STI)	Control treatment	Not reported	Headache severity, disability, quality of life	4	Unclear risk of bias