

The Somatic Connection

“The Somatic Connection” highlights and summarizes important contributions to the growing body of literature on the musculoskeletal system’s role in health and disease. This section of *The Journal of the American Osteopathic Association* (JAOA) strives to chronicle the significant increase in published research on manipulative methods and treatments in the United States and the renewed interest in manual medicine internationally, especially in Europe.

To submit scientific reports for possible inclusion in “The Somatic Connection,” readers are encouraged to contact JAOA Associate Editor Michael A. Seffinger, DO (mseffingerdo@osteopathic.org), or JAOA Editorial Advisory Board Member Hollis H. King, DO, PhD (hhking@ucsd.edu).

Japanese Massage Improves Shoulder Range of Motion in Elderly Patients With Late-Stage Parkinson Disease

Suoh S, Donoyama N, Ohkoshi N. Anma massage (Japanese massage) therapy for patients with Parkinson’s disease in geriatric health services facilities: effectiveness on limited range of motion of the shoulder joint. *J Bodyw Mov Ther.* 2016;20(2):364-372. doi:10.1016/j.jbmt.2015.11.008.

The American Osteopathic Association has prioritized research to examine the benefits of osteopathic manipulative treatment (OMT) in the management of Parkinson disease (PD) and has awarded research grants to evaluate this possibility.¹ Gait characteristics and lack of mobility in patients with PD are commonly examined outcome measures used to evaluate the effects of OMT on patients with PD.^{2,3} Previously, researchers in Japan examined the effect of Anma massage on shoulder range of motion (ROM) in elderly patients with PD.^{4,5} This article, also from Japan, was selected for review because of its relevance to current OMT research and to highlight the synergy of the worldwide research effort in PD management.

The patients (N=10) were aged 76 to 86 years and were all at stage 5 on the Hoehn and Yahr scale. All patients were residents in government-supported health service facilities for elderly persons. Exclusion criteria were patients who could not keep a balanced sitting position or who had severe dementia.

Although ROM in the shoulder was the focus of this study, Anma massage was also applied to the cervical spine tissues, the back, and the lower extremities for a total of 30 to 40 minutes. The intervention was similar to a procedure used in a study that examined the effects of OMT on PD.² The outcome measure, taken immediately after the intervention, was shoulder ROM measured by a goniometer for flexion, extension, and abduction of the shoulder joint. Six participants requested continuous treatment. For these patients, the intervention was performed once per week for 7 weeks, and outcome measures were taken at the end of this treatment period.

The immediate effect of the intervention was significant for ROM expansion ($P=.013$). The patients who received continuous interventions also demonstrated a significant increase in ROM on the affected side ($P=.004$).

Improved shoulder ROM is an enhancement in quality of life, mobility, and stability for individuals with PD. Current OMT research has the potential to demonstrate the benefits it can offer in PD management. (doi:10.7556/jaoa.2016.133)

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Manual Therapy and OMT May Be of Benefit in the Management of Somatosensory Tinnitus

Oostendorp RA, Bakker I, Elvers H, et al. Cervicogenic somatosensory tinnitus: an indication for manual therapy plus education? part 2: a pilot study. *Man Ther*. 2016;23:106-113. doi:10.1016/j.math.2016.02.006.

Manual therapy researchers in the Netherlands conducted a pilot study that evaluated the effect of manual therapy Utrecht (MTU) in conjunction with tinnitus education on patients with cervicogenic somatosensory tinnitus (CST). Manual therapy Utrecht is a very gentle, low-velocity passive movement of joints of the spine, pelvis, and extremities. Of an initial population of 506 patients who reported having CST, 126 met the inclusion criteria for 1 of 2 groups: a group of patients with CST (n=67) and a subgroup with CST and tinnitus sensitization (TS) (n=55). The inclusion criteria for the CST alone group were neck pain; impairment of cervical range of motion, preferably rotation; modulation of tinnitus by head and neck movements and posture; and tenderness of cervical-occipital muscles. Five of the following criteria had to be met to be placed in the TS subgroup: widespread hyperalgesia and pain remote from the symptomatic region, such as shoulder and back pain; impairment in quality of vision; burning eyes; modulation of tinnitus by psychological stress, such as sound phobia; modulation of tinnitus by sensory stimulation; headache; dizziness; or tingling in arms or legs.

The outcome measure was a tinnitus intensity visual analog scale (VAS), which ranged from 0 (no tinnitus) to 100 (worst intensity of tinnitus). The VAS data were collected before and after the MTU intervention. Therapy sessions were 30 to 60 minutes, and each patient received 7 to 13 sessions.

The results showed statistically significant reductions in VAS scores for both groups (CST alone, $P=.01$; CST and TS, $P<.001$), and the differences between the groups was clinically significant