Adverse events of massage therapy in pain-related conditions: a systematic review

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Abstract

Pain-related massage, important in traditional Eastern medicine, is increasingly used in the Western world. So the widening acceptance demands continual safety assessment. This review is an evaluation of the frequency and severity of adverse events (AEs) reported mainly for pain-related massage between 2003 and 2013. Relevant all-languages reports in 6 databases were identified and assessed by two coauthors. During the 11-year period, 40 reports of 138 AEs were associated with massage. Author, year of publication, country of occurrence, participant related (age, sex) or number of patients affected, the details of manual therapy, and clinician type were extracted. Disc herniation, soft tissue trauma, neurologic compromise, spinal cord injury, dissection of the vertebral arteries, and others were the main complications of massage. Spinal manipulation in massage has repeatedly been associated with serious AEs especially. Clearly, massage therapies are not totally devoid of risks. But the incidence of such events is low.
Details of manual therapy. Clinician type. Adverse event (nature and location). Follow-up. Jay et al. (2003) [17]. USA. English. 26, F. Chiropractic and massage therapy. Not mentioned. Neck pain, relieved by chiropractor, hematoma of ligamentum flavum at the level of C3-C4 with hemiparesis. Complete recovery after laminectomy (1 y.) Suh et al. (2005) [35]. Korea. English. 37, F. Massage therapy has long been used as an adjunct to traditional pain management methods: people intuitively massage areas of pain to make the area feel better. Research has shown elevated plasma $\beta$-endorphin levels following massage therapy, which may explain some of its pain-reducing properties. A systematic review of 22 articles on the effects of massage therapy on relaxation and comfort indicated significantly decreased anxiety or perception of tension in 8 of 10 articles; physiological relaxation was indicated in 7 of 10 articles; and 3 studies demonstrated it was effective at reducing pain. It is not unusual for some chronic pain to be related to musculoskeletal restrictions and/or immobility. Massage therapy remains grossly under-researched. In particular, clinical trials need to test the effectiveness of defined types of massage for defined conditions. The methodology for doing this is similar to clinical research in other areas. Existing trials of massage therapy are often burdened with significant limitations (Cawley, 1997).