Meta-analysis of the therapeutic effect of massage on patients with constipation after stroke

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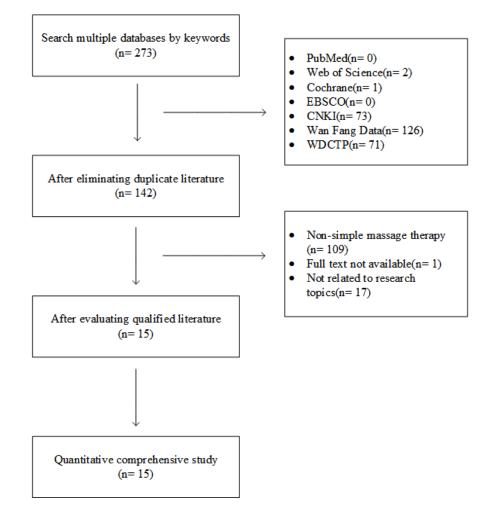
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Abstract

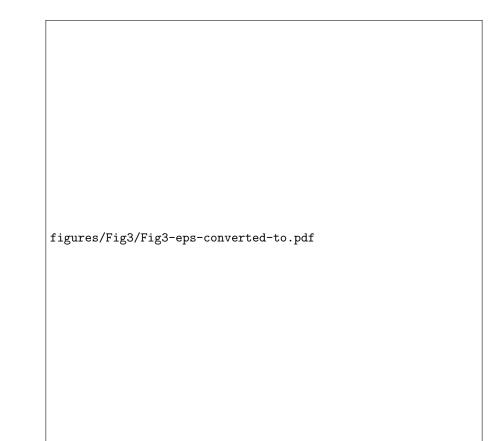
Objective: To assess the efficacy of massage therapy on the improvement of constipation in post-stroke patients by using a meta-analysis. Methods: The randomized controlled trials on the efficacy of massage in the treatment of constipation after stroke were retrieved in PubMed, web of science, Cochrane, EBSCO, China Knowledge Resource Integrated Database (CNKI), Wan Fang Data, and Weipu Database until September 2019. These articles whose quality met the inclusion criteria will be assessed using the evaluation method which recommended by the Cochrane Collaboration. The software RevMan 5.3 provided by the Cochrane Collaboration was used. Results: A total of 15 studies with 1224 patients were included for the statistical analysis. Results showed that massage can improve the total effective rate of post-stroke constipation patients compared with conventional treatment (RR = 1.41, 95% CI = 1.22 - 1.63, P < 0.00001). Also, some secondary outcome indicators' results were also superior to the control group, including the modified Rankin scale (SMD = -0.53, 95% CI = -1.02 - -0.04, P = 0.03), the self-rating depression scale (SMD = -1.25, 95% CI = -1.73 - 0.77, P < 0.00001) and the self-designed scales ([RR = 1.74, 95% CI = 1.26 - 2.40, P = 0.0007], [RR = 1.17, 95% CI = 0.97 - 1.42, P = 0.09], [RR = 1.92, 95% CI = 1.16 - 3.19, P = 0.01], [RR = 1.22, 95% CI = 1.09 - 1.38, P = 0.0008], [RR = 1.92, 95% CI = 1.11 - 3.30, P = 0.02]). Conclusion: Massage has certain curative effect on patients with constipation after stroke. Meta-analysis results imply that massage therapy could be a beneficial complementary treatment for a patient suffering constipation after stroke. Limited by the number and quality of the included studies, the above conclusions need to be further studied to confirm.

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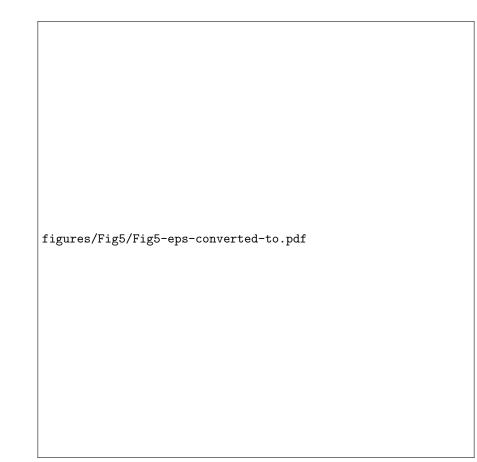
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