Chemotherapy-Induced Diarrhea Evaluation Table 2023: Moxibustion

Systematic Review

Citation	Design/Method Sample/Setting	Variables and Intervention	Outcome Measures	Results/Analysis	Limitations	Quality and Nursing Implications
Yao, Z., Xu, Z., Xu, T., Liu, X., Xu, S., Wan, C., & Zhou, X. (2022). Moxibustion for alleviating chemotherapy-induced gastrointestinal adverse effects: A systematic review of randomized controlled trials. *Complementary Therapies in Clinical Practice*, 46, 101527. https://doi.org/10.1016/j.ctcp.2021.101527	**Design:** Systematic review **Method:** Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA). Search of PubMed®, Embase®, Cochrane®, and four Chinese-language databases. Dual reviewer data extraction. Grading of Recommendations, Assessment, Development, and Evaluations was used for rating the evidence and Cochrane Risk of Bias assessment. **Sample:** 32 randomized controlled trials ranging from 48 to 332 patients in active anticancer treatment, totaling 2,990 cases. The average age of participants was 56.3 years, and they were predominantly men (58.9%). **Setting:** Oncology settings; countries unspecified	**Independent Variable(s):** Moxibustion **Dependent Variable(s):** Primary—nausea and vomiting Secondary—diarrhea, anorexia, constipation, abdominal distension, quality of life, and Karnofsky Performance Status score **Intervention:** Moxibustion: Moxa is burned and applied to acupoints directly or indirectly. The dosage of moxibustion was one session per day ranging from 3 to 60 days. In this review, it was performed directly in 18 studies and separated by ginger herbs or salt in 14 studies.	Primary outcomes of the study: nausea and vomiting Secondary outcomes of study: diarrhea, anorexia, constipation, abdominal distension, quality of life, Karnofsky Performance Status score	In intervention groups, moxibustion significantly reduced the following variables compared with controls: • nausea and vomiting (risk ratio (RR) = 0.70, 95% confidence interval (CI) [0.61, 0.79]; 44.2% vs. 63.3%; $p < 0.00001$); • severe nausea and vomiting (RR = 0.39, 95% CI [0.29, 0.51]; 5.9% vs. 16.6%; $p < 0.00001$); abdominal distension (RR = 0.60, 95% CI [0.46-0.78]; 20.0% vs. 34.7%; $p = 0.0001$); • diarrhea, which was assessed as an outcome in 7 randomized controlled trials (RR = 0.56, 95% CI [0.38-0.82]; 12% vs. 21.3%; $p = 0.003$); • constipation (RR = 0.59, 95% CI [0.44-0.78]; 18.1% vs.30.8%; $p = 0.0002$); • Karnofsky Performance Status score (mean difference 7.53, 95% CI [3.42, 11.64]; $p = 0.0003$); • quality of life (mean difference 8.88, 95% CI [0.96, 16.80]; $p = 0.03$). Moxibustion did not have any benefit in anorexia (RR = 0.69, 95% CI [0.40, 1.22]), or abdominal pain (RR = 0.60, 95% CI [0.28-1.30]). Only 4 of the randomized controlled trials had information on adverse effects—2 had no events, two had mild events, one reported four cases of burns, and two reported skin irritation.	The risk of bias was high; 9 RCTs were considered to be at an overall moderate risk of bias because of unclear reporting on allocation concealment, blinding status, and/or data completeness. The rest of the randomized controlled trials were assessed as having an overall high risk of bias. All outcomes were affected by varying degrees of risk of bias, with only 7 of the 32 randomized controlled trials assessing diarrhea as an outcome. Most trials had co-intervention with gastrointestinal tract pharmacologics, presenting a potential confounding variable.	After excluding randomized controlled trials with an overall high risk of bias, there were no notable changes in the results of the incidences of nausea/vomiting, distension, and diarrhea or the Karnofsky Performance Status score. More research is needed to determine the effectiveness of moxibustion for the treatment of gastrointestinal symptoms. This systematic review suggests that moxibustion may be used safely and reduce the incidence of nausea/vomiting, severe nausea/vomiting, abdominal distension, diarrhea, and constipation in patients with malignant tumors after chemo; however, these findings are based on evidence of moderate to very low quality due to overall risk of bias, high heterogeneity, and imprecision across the studies and therefore need to be interpreted cautiously.