

## Systematic Review

Citation	Design/Method Sample/Setting	Variables and Intervention	Outcome Measures	Results/Analysis	Limitations	Quality and Nursing Implications
<p>Zhao, W.P., Li, J., Zhang, Y.S., Li, H., Huang, J.C., Bai, J., &amp; Li, J.B. (2021). Efficacy of acupuncture therapy for improving anorexia in tumor patients: a Meta-analysis. <i>Journal of Traditional Chinese Medicine</i>, 41(4), 507–514. <a href="https://doi.org/10.19852/j.cnki.jtcm.2021.03.002">https://doi.org/10.19852/j.cnki.jtcm.2021.03.002</a></p>	<p><b>Design/Method:</b> Meta-analysis of randomized controlled trials (RCTs)</p> <p><b>Method:</b> Database search was conducted of China National Knowledge Infrastructure (CNKI), Wanfang Data, VIP, PubMed®, Cochrane®, and Embase® for RCTs studying acupuncture interventions with or without treatment for loss of appetite or cachexia. Dual extraction, risk of bias (ROB) assessment, and Jadad quality evaluation were performed.</p> <p><b>Sample:</b> 10 RCTs were included with 648 patients with diagnosis of malignancy and loss of appetite or cachexia (343 in intervention groups, 305 in control groups).</p> <p><b>Setting:</b> Not specified</p>	<p><b>Independent Variable(s):</b> Acupuncture</p> <p><b>Dependent Variable(s):</b> Anorexia, weight, performance status</p> <p><b>Intervention:</b> 7 studies tested ordinary acupuncture; 3 additional studies were included testing auricular acupuncture, acupoint injections, and acupoint embedding.</p>	<p>Clinical effectiveness rate and appetite scores</p> <p>Functional Assessment of Anorexia-Cachexia Therapy (FAACT) appetite scale score</p> <p>Karnofsky Performance Status (KPS)</p> <p>Body weight</p>	<p>Acupuncture was more effective in improving appetite over control (n = 396) (OR = 0.18, 95% CI [0.09, 0.27], p = 0.0001)</p> <p>Rate of improved anorexia assessed in 5 studies (n = 396) (OR = 0.18, 95% CI [0.09, 0.27], p = 0.0001)</p> <p>Improvement of appetite scores assessed in 5 studies (n = 195) (combined effect size standard mean deviation (SMD) = 1.39, 95% CI [0.69, 2.09], p = 0.0001)</p> <p>Body weight assessed in 3 studies showed no differences between intervention and control (n = 140) (SMD = 2.73, 95% CI [-2.25, 7.71], p = 0.28)</p> <p>KPS scores assessed in 3 studies (n = 191) (favored treatment: OR = 2.25, 95% CI [1.13, 4.50], p = 0.02)</p> <p>FAACT scores assessed in 2 studies (n = 80) (SMD = 11.84, 95% CI [5.59, 18.09], p = 0.0002)</p> <p>3 studies (n = 181) of patients NOT receiving radiation therapy (RT) or chemotherapy indicated that when no chemotherapy or RT treatment was given during acupuncture, the rate of improvement of anorexia was not statistically different from control (combined effect size RR = 0.13, 95% CI [0.00, 0.25], p = 0.05).</p> <p>4 studies (n = 192) reported appetite scores in intervention versus control groups. indicating no significant difference between groups when no RT or chemotherapy treatment was given (combined SMD = 1.31, 95% CI [0.41, 2.22], p &lt; 0.05).</p> <p>5 of 10 articles included adverse reaction reporting, 2 reported no adverse reactions related to acupuncture, and 3 reported mild reactions, consisting mostly of pain and bleeding not requiring treatment.</p>	<p>3 of 10 RCTs included did not describe randomization methods.</p> <p>4 of 10 articles were deemed high quality.</p> <p>Baseline characteristics were not reported, limiting understanding of applicability to population at large.</p> <p>Heterogeneity in acupuncture administration</p>	<p>Acupuncture resulted in significant improvement in appetite scores and quality of life in patients with malignant tumors. There were no differences in body weight changes between intervention and control groups. Methods were valid and results reliable. Adverse reactions were mild in intervention groups, including bleeding and pain that resolved spontaneously.</p> <p>Nurses can use this information to understand nonpharmacologic approaches to treatment of anorexia related to malignant tumors with or without concurrent chemotherapy and/or RT. Sample size, quality, and heterogeneity in applying acupuncture limits these findings, and more research is needed to validate the findings.</p>

<p>Liu, W., Lopez, G., Narayanan, S., Qdaisat, A., Geng, Y., Zhou, S., . . . Cohen, L. (2021). Acupuncture for cancer-related anorexia: A review of the current evidence. <i>Current Oncology Reports</i>, 23(7), 82.  <a href="https://doi.org/10.1007/s11912-021-01067-1">https://doi.org/10.1007/s11912-021-01067-1</a></p>	<p><b>Design:</b> Systematic review</p> <p><b>Method:</b> Preferred Reporting Items for Systematic Review and Meta-Analysis (PRISMA). Database search was conducted of Medline, Embase®, Scopus®, CINAHL®, Wanfang, and CNKI databases for studies of acupuncture or moxibustion for treatment of loss of appetite or anorexia. Cochrane ROB criteria were completed.</p> <p><b>Sample:</b> Systematic review consisted of adult patients with cancer diagnosis and not on active treatment. Review contained 12 studies including 468 patients with mostly solid tumor cancers at advanced stage (9 prospective RCTs, 1 retrospective RCT, 2 single-cohort studies). Age range of participants was 20–83 years.</p>	<p><b>Independent Variable(s):</b> Acupuncture, moxibustion</p> <p><b>Dependent Variable(s):</b> Anorexia, weight, appetite, taste aberrations</p> <p><b>Intervention:</b> 7 studies looked at acupuncture only, 4 moxibustion only and 1 study compared acupuncture alone to acupuncture plus moxibustion.</p>	<p>Varied outcome measures between studies:</p> <p>Quality of life (QOL) questionnaires</p> <p>Traditional Chinese Medicine symptoms</p> <p>Subjective assessments of appetite, nausea, and oral intake</p> <p>Body mass index &amp; body weight</p>	<p>Results were presented in narrative form. Although most studies reported a positive effect of acupuncture and/or moxibustion on anorexia or poor appetite in patients with cancer, there is insufficient evidence to draw firm conclusions, warranting further research.</p> <p>Adverse event (AE) information was not reported for this intervention.</p>	<p>ROB assessment completed by one author.</p> <p>The sample size was generally small for all studies, with one RCT having the largest number of participants (n = 65); no other sample sizes were mentioned.</p> <p>Heterogeneity of intervention types, comparators, and measures group.</p>	<p>Included evidence is of low quality to draw conclusion on application in practice.</p> <p>Loss of appetite and anorexia is common in patients with advanced cancer, and patients may seek out alternative therapies to manage this problem. Risks or side effects from acupuncture are deemed to be low. There is insufficient evidence on the benefit of acupuncture and/or moxibustion for the treatment of chronic cancer-related anorexia/appetite problems, thus warranting further research.</p>
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## General Evidence

Citation	Design/Method Sample/Setting	Variables and Intervention	Outcome Measures	Results/Analysis	Limitations	Quality and Nursing Implications
<p>Wang, L. &amp; Wang, Y. (2019). Abdominal acupuncture combined with megestrol acetate for advanced cancer-related anorexia: A randomized controlled trial. <i>World Journal of Acupuncture-Moxibustion</i>, 29, 200-205.</p>	<p><b>Design:</b> RCT</p> <p><b>Method:</b> Abdominal acupuncture administered to treatment group 5 times per week in addition to megestrol acetate for two weeks. Control group received only megestrol for 2 weeks.</p> <p><b>Sample:</b> Sample of 60 participants (30 intervention, 30 control). Mean age = 58.7 years in intervention, 54.6 in control; 57% male, 43% female in intervention group; 47% male, 53% female in control group. Study included patients with various cancer types of stage III–IV after completion of chemotherapy or RT.</p> <p><b>Setting:</b> Oncology Department Hugu Temple Hospital of Traditional Chinese Medicine</p>	<p><b>Independent Variable(s):</b> Abdominal acupuncture plus megestrol</p> <p><b>Dependent Variable(s):</b> Appetite, performance status, weight</p> <p><b>Intervention:</b> Abdominal acupuncture administered to treatment group 5 times per week in addition to megestrol acetate for two weeks. Control group received only megestrol for 2 weeks. Measures of appetite, performance status, weight, and patient-generated subjective global assessment were taken before and after treatment.</p>	<p>Appetite visual analog scale (VAS): 0 = normal appetite 10 = extreme anorexia</p> <p>Patient-generated subjective global assessment</p> <p>KPS</p> <p>Weight</p>	<p>No baseline differences prior to treatment were observed for appetite VAS, KPS scores, or weight.</p> <p>Appetite VAS: Patients in the control and intervention arms had improvement in appetite, as indicated by lower VAS scores.</p> <p>KPS scores were higher for both groups after treatment compared to before.</p> <p>Difference values were significantly higher for VAS and KPS in the treatment arm (<math>p &lt; 0.05</math>).</p> <p>Weight was higher in both groups after treatment than before, and there was not a significant difference between groups (<math>p &gt; 0.05</math>).</p> <p>Clinical curative effect criteria: Treatment arm had 76% effective rate for appetite VAS scores, and control arm had 50% effective rate.</p> <p>Adverse reactions: Two patients in intervention arm had local subcutaneous hemorrhage that did not affect future treatment. No other AEs or abnormalities were noted.</p>	<p>Findings not generalizable</p> <p>Small sample size</p> <p>It is unclear how patients were randomized and what members of the study team (if any) were blinded.</p> <p>The dose of megestrol is unclear for each group.</p>	<p>Methodology for randomization was unclear.</p> <p>Improvements using standard therapy of megestrol were noted in the control group, and feasibility of implementation of abdominal acupuncture is a concern. More research is needed to explore the benefit of abdominal acupuncture in addition to standard megestrol treatment for cancer-related anorexia.</p> <p>Larger multicenter studies are needed to confirm the benefit of abdominal acupuncture for cancer-related anorexia.</p>