Ya-Wen Shih et al., J Nurs Care 2017, 6:4(Suppl)
DOI: 10.4172/2167-1168-C1-049

The effectiveness of acupressure for relieving chemotherapy-induced bone marrow suppression

Ya-Wen Shih[1], **Shun-Fa Yang**[2], **Ming-Hsien Chien**[1], **Ching-Wen Chang**[1], **Hung-Shu Chang**[1] and **Hsiu-Ting Tsai**[1]
[1]Taipei Medical University, Taiwan
[2]Chung Shan Medical University, Taiwan

Aim: The purpose of this study was to evaluate the effectiveness of non-invasive acupressure on the prevention and improvement of chemotherapy-induced myelosuppression among patients with gynecologic cancer.

Methods: A double-blind, randomized control trial with total of 28 women underwent chemotherapy were randomly assigned to experimental group (n=10) receiving acupressure on Hegu (LI4), Quchi (LI11); Xuehai (SP10); Sanyin-jiao (SP6), Taixi (K3), Zusanli (ST36), Taichong (LR3); and Baihui (GV20), 5 min each, 3 times a day for 6 weeks; or randomly assigned to control group who received usual care (n=18). The blood counts, including WBCs, platelets and hemoglobin, and the blood levels of SCF and GM-CSF were collected for analyses.

Results: The concentration of blood hemoglobin was significantly decreased from 11.6±2.2 mg/dL (Mean±SD) to 10.8±1.6 mg/dL (P=0.03) in control group after 6 weeks, but there was no significant difference in hemoglobin concentration before (11.4 mg±1.0) and after (10.9 mg±1.1) chemotherapy in acupressure group. The levels of SCF were significantly increased before and after chemotherapy in both control group (from 1196.10±293.17 ng/mL to 1325.05±253.77 ng/mL; p=0.01) and acupressure group (from 1046.78±469.52 ng/mL to 1387.06±310.00 ng/mL; p=0.007), and the borderline difference (p=0.05) of increased mean difference of SCF before and after 6 weeks of receiving chemotherapy was found between acupressure group (340.28 ng/mL±255.46) and control group (128.94 ng/mL 250.64). There was a significant interaction effect between acupressure and time-dependent manner to increase blood level of SCF when the acupressure was conducted for 6 weeks (=211.34, p=0.02).

Conclusion: Acupressure is a recommended novel strategy for clinical application to the alleviation of myelosuppression induced by chemotherapy, and the effect was associated with the regulation of expression of stem cell factor (SCF).

Biography

Ya-Wen Shih is a PhD student from Taipei Medical University, Taiwan. She has completed her MSc in Nursing from Queen's University of Belfast, UK. Her professional research focus is on Women's Health, Immunity and Cancer.

Notes: