

## **Sigma's 30th International Nursing Research Congress**

### **The Preliminary Effectiveness of Auricular Point Acupressure on Chemotherapy-Induced Peripheral Neuropathy**

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#### **Purpose:**

Chemotherapy-induced neuropathy is a significant challenge among cancer patients following chemotherapy. The effects of the neuropathy includes significant functional disabilities, falls and pain. The effects also extends to high healthcare cost and resource use. There is one medication currently approved for treatment of chemotherapy-induced peripheral neuropathy and that is Duloxetine however, it only improved symptoms by 0.73 points when compared with placebo. Due to the limited and ineffective treatment options available for such a large population, auricular point acupressure can be used to addressed the symptoms patients experience. We explored the effects of auricular point acupressure (APA) to reduce chemotherapy-induced neuropathy (CIN). It involves needleless, acupuncture-like stimulation on specific ear points.

#### **Methods:**

This pilot study examined the effects of a 4-week APA intervention in the management of CIN. Descriptive analysis was used to examine the changes in study outcomes.

#### **Results:**

Fifteen participants were enrolled. Two participants dropped out because they developed new medical conditions. Thirteen participants completed the study (87% retention rate). Study participants had more severe symptoms in the lower extremities (i.e., toes, feet, soles) when compared to the upper extremities (i.e., fingers, wrists, elbows). After the 4-week APA intervention, the mean percentage change scores ranged from 38% (tingling) to 49% (numbness), and compared to pre-intervention, the therapeutic effects of APA were sustained at the 1-month follow-up. Function in both upper and lower extremities improved after the APA intervention ( $\geq 28\%$ ) and continued to improve at 1-month follow-up ( $\geq 36\%$ ).

#### **Conclusion:**

Preliminary results from this small sample provide initial evidence of the effectiveness of APA on CIN. Future studies should confirm these results using a larger sample, a comparative sham control, and an examination of the underlying physiological mechanisms of the anti-CIN effects of APA. APA may provide an inexpensive and effective complementary approach for the self-management of CIN. Once the seeds have been taped to the patient's ear by the provider, patients are empowered to self-manage their CIN in their own environment.

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#### **Title:**

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**Keywords:**

Auricular Point Acupressure, Chemotherapy Induced Peripheral Neuropathy and Oncology

**References:**

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**Abstract Summary:**

Chemotherapy Induced Neuropathy (CIN) is experienced by a majority of oncology patients who have had chemotherapy. Unfortunately, there is no treatment for such debilitating effects. Auricular point acupressure is a complimentary therapy that uses stimulation of specific ear points to address pain and this intervention was explored to address CIN.

**Content Outline:**

**Purpose.** Chemotherapy-induced neuropathy is a significant challenge among cancer patients following chemotherapy. We explored the effects of auricular point acupressure (APA) to reduce chemotherapy-induced neuropathy (CIN). It involves needleless, acupuncture-like stimulation on specific ear points.

**Design/Method.** This pilot study examined the effects of a 4-week APA intervention in the management of CIN. Descriptive analysis was used to examine the changes in study outcomes.

**Result.** Fifteen participants were enrolled. Two participants dropped out because they developed new medical conditions. Thirteen participants completed the study (87% retention rate). Study participants had more severe symptoms in the lower extremities (i.e., toes, feet, soles) when compared to the upper extremities (i.e., fingers, wrists, elbows). After the 4-week APA intervention, the mean percentage change scores ranged from 38% (tingling) to 49% (numbness), and compared to pre-intervention, the therapeutic effects of APA were sustained at the 1-month follow-up. Function in both upper and lower extremities improved after the APA intervention ( $\geq 28\%$ ) and continued to improve at 1-month follow-up ( $\geq 36\%$ ).

**Conclusions.** Preliminary results from this small sample provide initial evidence of the effectiveness of APA on CIN. Future studies should confirm these results using a larger sample, a comparative sham control, and an examination of the underlying physiological mechanisms of the anti-CIN effects of APA.

**Clinical Implications.** APA may provide an inexpensive and effective complementary approach for the self-management of CIN. Once the seeds have been taped to the patient's ear by the provider, patients are empowered to self-manage their CIN in their own environment.

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