

*“The effects of P6 acupressure in the prophylaxis of chemotherapy-related nausea and vomiting in breast cancer patients.”*

### **Abstract:**

#### **Background**

Nausea, and to a lesser extent vomiting, remain significant clinical problems after the administration of chemotherapy, with up to 60% of patients reporting nausea despite use of antiemetics. Combining antiemetics with other non-pharmacological treatments may prove more effective in decreasing nausea than antiemetics alone. Hence, the aim of the current study was to evaluate the effectiveness of using acupressure in Pericardium 6 (Neiguan) acupoint in managing chemotherapy-induced nausea and vomiting.

#### **Methods**

This was a randomised controlled trial. Acupressure was applied using wristbands (Sea-Band™) which patients in the experimental group had to wear for the 5 days following the chemotherapy administration. Assessments of nausea, retching and vomiting were obtained from all patients daily for 5 days. Thirty-six patients completed the study

from two centres in the UK, with 19 patients allocated to the control arm and 17 to the experimental arm.

#### **Results**

It was found that nausea and retching experience, and nausea, vomiting and retching occurrence and distress were all significantly lower in the experimental group compared to the control group ( $P < 0.05$ ). The only exception was with the vomiting experience, which was close to significance ( $P = 0.06$ ).

#### **Discussion**

Results highlight the important role of safe and convenient non-pharmacological complementary therapies, such as acupressure, in the management of the complex symptoms of chemotherapy-related nausea and vomiting.

#### **Introduction:**

Despite advances in antiemetic research over the past decade or so and the introduction of 5-HT<sub>3</sub> and NK1 receptor antagonists, chemotherapy-related nausea and (to a lesser extent) vomiting remain significant problems for the patients, decreasing their quality of life and negatively affecting their treatment experience.<sup>1, 2</sup> As many as 60% of patients receiving moderately high emetogenic chemotherapy still experience nausea and it seems that,

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while newer antiemetic treatments have decreased vomiting, they had an inverse effect in relation to nausea.<sup>3</sup> Our difficulty in completely managing chemotherapy-related nausea and vomiting may stem from the multiple pathways involved in the development of nausea and vomiting including the chemoreceptor trigger zone in the brain, dopamine receptors, personality, vestibular dysfunction, age, anxiety and psychological mechanisms.<sup>4</sup> Since pharmacological treatments have failed to completely manage nausea and vomiting, exploring the complementary role of other, non-pharmacological, approaches that can be used in addition to pharmacological approaches becomes paramount.

According to Traditional Chinese Medicine doctrines, illness results from an imbalance in the flow of energy through the body. This energy or Qi (chee) is restored with the use of acupuncture and acupressure on certain points in the body which have been identified through critical observations and testing over 4000 years. In scientific terms, neurochemicals released after needling or pressure in a specific point may be responsible for its effect. The most commonly used point for nausea and vomiting is Pericardium 6 (Neiguan or P6), located above the wrist...

A large number of studies have demonstrated that acupressure can relieve nausea and vomiting postoperatively<sup>8, 9</sup> or after laparoscopy,<sup>10</sup> during pregnancy<sup>11, 12</sup> and for motion sickness.<sup>13</sup> Furthermore, a systematic review of 26 postoperative trials (n = 3347) confirms that acupuncture stimulation in general at point P6 significantly reduces the risk of nausea, vomiting and the need for rescue antiemetics.<sup>14</sup> ...

The aim of the current study was to assess the effectiveness of acupressure wristbands in decreasing nausea and vomiting in a homogeneous group of breast cancer patients receiving chemotherapy. As vomiting is currently managed quite effectively with the use of antiemetics while nausea is still a major problem,<sup>1, 2</sup> the primary endpoint of this study is occurrence of and distress from nausea...

### **Methods:**

All subjects were newly diagnosed and chemotherapy naïve, starting their first cycle of chemotherapy... All patients received standard antiemetics before chemotherapy with a 5-HT<sub>3</sub> receptor antagonist plus dexamethasone for acute nausea and vomiting, although prescribed antiemetics for delayed nausea and vomiting varied among patients and

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included metoclopramide, dexamethasone or cyclizine as needed... Acupressure wristbands (Sea-Band™, Sea-Band Ltd., Leicestershire, UK) were used ([Fig. 1](#)). These bands are elastic wrist bands with a 1 cm protruding round plastic button (stud), available in two sizes, the standard and a larger size. Patients wear the wristband with the stud pressing the P6 acupoint, which is located on the anterior surface of the forearm, approximately three-finger width up from the crease of the wrist between the tendons of the palmaris longus and flexor carpi radialis. Wristbands were used bilaterally...

The researchers provided those patients randomised to the experimental group with training about what acupressure is, how to identify the P6 acupoint and how to wear the wrist band. Patients had the opportunity to practice with the researchers several times. Following this, patients were given a set of acupressure wristbands and were instructed to wear them bilaterally throughout the following 5 days taking them off only when they were having a shower or a bath... Nausea was experienced significantly less often in the experimental group compared to the control group ( $F = 21.6$ ,  $P < 0.001$ ) across the five assessment days... Total experience of nausea, vomiting and retching (all items of the

scale) was also significantly better in the experimental group ( $F = 13.3$ ,  $P = 0.001$ )... Both nausea and vomiting produced significantly less distress in the experimental group than the control group ( $F = 11.05$ ,  $P = 0.002$  and  $F = 6.22$ ,  $P = 0.018$ , respectively), with only day 3 of chemotherapy being similar in both groups... There were no side effects from the use of the wristbands...

### **Discussion:**

Findings from the present study confirmed that chemotherapy-related nausea experience, occurrence and distress were significantly lower in the acupressure group than the control group. This is in accordance with the accumulating body of evidence related to acupressure during chemotherapy<sup>18, 23, 24</sup> and shows that acupressure is a safe and complementary option in the management of chemotherapy-related nausea and vomiting... Acupressure seems to be a good way to complement antiemetic pharmacotherapy, as it is safe, convenient and with minimal (bands) or no costs (finger acupressure) involved. These make it a cost-effective intervention... Acupressure is easily learnt and taught and patients should be informed about its potential role and taught how to apply it. Leaflets about

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## Case Study: Acupressure Treatment of Nausea from Chemotherapy

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acupressure for the management of nausea and vomiting could be available in chemotherapy units so that patients who are interested to use such a technique are encouraged to come forward and learn more from nurses or other health professionals. This can add to the patients' options of their antiemetic approaches and empower them to be involved in the management of these distressing side effects.

Molassiotis A, Helin AM, Dabbour R, Hummerston S.  
The effects of P6 acupressure in the prophylaxis of chemotherapy-related nausea and vomiting in breast cancer patients. *Complement Ther Med*. 2007 Mar;15(1):3-12. doi: 10.1016/j.ctim.2006.07.005. Epub 2006 Sep 27. PMID: 17352966.

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