

## 11. Gastrointestinal, Hepato-Biliary-Pancreatic Diseases

### Reference

Kawauchi Y, Hayashida M, Takeuchi C, et al. Efficacy of acupressure on prevention of postoperative nausea and vomiting. *Rinsho Masui (Journal of Clinical Anesthesia [Japan])* 2000; 24(1): 21–4 (in Japanese with English abstract). Ichushi Web ID: 2000127596

#### 1. Objectives

To evaluate the efficacy of acupressure wrist bands applied to the PC6 (内関) acupuncture point for preventing postoperative nausea and vomiting.

#### 2. Design

Randomized controlled trial (RCT).

#### 3. Setting

Department of Anesthesia, Tokyo Metropolitan Fuchu Hospital (current Tokyo Metropolitan Tama Medical Center), Tokyo, Japan.

#### 4. Participants

One hundred and four patients with gynecological benign disease who were scheduled for laparotomy under general anesthesia between September 1997 and August 1998 (mean age for each group: 45, 46 years, respectively).

#### 5. Intervention

Arm 1: Acupressure group: acupressure wrist bands (Sea band ® Sea Band UK Ltd.) were preoperatively applied at the bilateral PC6 (内関) acupuncture points (with a plastic ball under the band touching the acupuncture point). During the operation, the anesthesiologist pressed the point every 30 minutes and after the operation, each patient pressed the point on an as needed basis for 24 hours (n=52).

Arm 2: Control group: no intervention (n=52).

#### 6. Main outcome measures

Presence or absence of nausea and vomiting (determined by interview) and usage of antiemetic infusion (obtained from nursing records).

#### 7. Main results

Significantly fewer patients developed postoperative nausea or vomiting in Arm 1 compared with Arm 2 ( $P<0.05$  and  $P<0.001$ , respectively). The number of patients who used antiemetic infusion was also smaller, but not significantly, in Arm 1. Although the number of patients enrolled initially is not clear, patients whose acupressure ball had moved away from the PC6 (内関) acupuncture point were excluded from the analysis.

#### 8. Conclusions

Acupressure at the PC6 (内関) acupuncture point is effective for preventing postoperative nausea and vomiting.

#### 9. From acupuncture and moxibustion medicine perspective

The authors mentioned some reports on the mechanism underlying the treatment effects of acupuncture on nausea and vomiting, including acupuncture-induced secretion of neurochemical substances and increased gastric peristalsis.

#### 10. Safety assessment in the article

Sixteen patients developed mild edema in the hands.

#### 11. Abstractor's comments

This very simple clinical trial determined whether acupressure band application might have a preventive effect on postoperative nausea and vomiting and provided clear results. Some aspects of the trial may need improvement: 1) there is no detailed description about the method for random assignment; 2) there is no quantitative outcome measure; and 3) as the authors stated in the article, bias may have been introduced by telling patients about the antiemetic effect of the band before the bands were applied.

#### 12. Abstractor and date

Wakayama I, 9 September 2011.