

## P6 acupressure reduces morning sickness

**J W Dundee** MD FFARCS    **F B R Sourial** MB DPhys Med    **R G Ghaly** MB FFARCS  
**P F Bell** MB FFARCS    *Department of Anaesthetics, The Queen's University of Belfast*

*Keywords:* acupressure; morning sickness

### Summary

A prospective study was designed to test the efficacy of pressure at the P6 (Neiguan) acupuncture point, in preventing morning sickness. Three groups of patients in early pregnancy recorded the severity and frequency of sickness over a period of 4 consecutive days following daily pressure at P6 point, pressure at a point near the right elbow and with no treatment. Troublesome sickness was significantly less in both the genuine (23/119) and dummy (41/112) pressure groups as compared with the control series (67/119). When the data are adversely 'weighted' to compensate for the lower incidence of fully completed returns in the active treatment groups, only the P6 group show a significant reduction in sickness. No side effects occurred in either group and while anticipation of benefit may offer a partial explanation for the findings, pressure at the Neiguan point appears to have a specific therapeutic effect.

### Introduction

Early morning nausea and vomiting occurs in up to 88% of pregnancies, being most common between the 6th and 14th weeks<sup>1</sup>. When reassurance and dietary considerations fail to produce relief, antiemetic therapy may be necessary. However, reports in the lay press and photographs of thalidomide victims make many patients reluctant to use these.

When visiting China, one of the authors saw acupressure at P6 (Neiguan) point being demonstrated to patients attending an antenatal clinic<sup>2</sup>, and there are anecdotal reports of the use of acupuncture in preventing morning sickness<sup>3</sup>. Following a convincing demonstration of the effectiveness of acupuncture at P6 point in reducing postoperative sickness<sup>2,4</sup> and that associated with cancer chemotherapy<sup>5</sup> we have examined the claims of the effectiveness of acupressure, applied by the patient at the Neiguan point, and also pressure at a dummy point near the right elbow in reducing morning sickness. P6 acupressure has been shown to reduce postoperative sickness<sup>6</sup> and we here report the findings of a study involving 350 pregnant outpatients designed to evaluate its use in preventing morning sickness.

### Method

The study, which was approved by the hospital ethical research committee, was carried out over one year on patients attending the antenatal clinic at the Royal Maternity Hospital, Belfast. They were seen (mostly by FBRS) at their first visit for their present pregnancy and asked to cooperate in a study relating to morning sickness. On a daily basis patients were allocated at random to one of 3 groups.

### Control group

The women allocated to this group were asked to complete a form over a period of not less than 4 consecutive days detailing the incidence of severity of sickness.

### ACP groups

These were told that ACP was being investigated as a potential treatment for morning sickness and asked to press P6 point (or a dummy point) for 5 min for 4 successive mornings and to repeat this at 4-hourly intervals. P6 is found 2 Chinese inches 'cun', (approximately the width across the interphalangeal joint of the thumb) from the proximal-distal wrist crease. It lies between the tendons of palmaris longus and flexor carpii radialis<sup>4</sup>. The dummy point was close to the right elbow. They were likewise asked to keep a record of the frequency and severity of sickness on a special form which carried a diagram of the appropriate pressure point.

A stamped addressed envelope was provided for return of forms and if these did not appear in two weeks the patients were contacted by telephone.

Only cards containing a complete record over 4 consecutive days were analysed. These were examined by two independent observers (JWD, PFB), who did not know which group the cards referred to. The severity of symptoms was graded on a five point scale (Table 1), drawn up after examination of about 100 cards, suitable for classification of the data provided by these patients.

Table 1. Grading of emetic symptoms

None	No symptoms
Slight	Occasional nausea; no vomiting
Moderate	Daily nausea; no vomiting
Troublesome	Periodic vomiting with or without nausea
Severe	Daily nausea and vomiting

Table 2. Relevant data of the 3 study groups

	Acupuncture		
	No treatment	P6	Dummy
<i>n</i>	119	119	112
Fully completed returns (%)	70	50	52
Weeks gestation			
Mean $\pm$ s.d.	10.8 $\pm$ 2.2	11.4 $\pm$ 3.0	10.6 $\pm$ 2.3
6-10%	44	25	28
10-13%	46	63	62
13+%	10	12	10

Table 3. Incidence and severity of morning sickness of pregnancy over a period of 4 days in 3 groups of women, one of whom applied 'acupressure' at P6 point and one at a 'dummy' point

Sickness	Acupressure group		
	Control group (n=119)	P6 (n=119)	Dummy (n=112)
Severe	30	6	11
Troublesome	37	23	30
Moderate	25	23	41
Slight	12	35	13
None	15	32	17

Although there was only a small difference in the reporting rate in the three groups (70-80%) there was a substantial difference in the total number of fully completed records. The returns were examined periodically and in order to balance the series the allocation of patients to particular treatment groups was adjusted accordingly.

The findings in the various groups were compared by the Chi-squared test, based on the assumption that the frequency and severity of sickness reported by 119 patients is representative of a population in early pregnancy.

## Results

Table 2 gives the relevant patient data, the only statistically significant difference between groups being a slightly longer ( $P < 0.04$ ) average duration of pregnancy in the P6 as compared with the dummy acupressure groups.

Table 3 shows a highly significant ( $\chi^2 = 36.4$ ;  $df = 4$ ;  $P < 0.0005$ ) difference between the severity of sickness in the control group and those having P6 acupressure, and a significant ( $\chi^2 = 13.4$ ;  $df = 4$ ;  $P < 0.01$ ) difference between the controls and the dummy acupressure series. Sickness was significantly less severe in patients practising P6 acupressure than in those using a dummy point ( $\chi^2 = 21.9$ ;  $df = 4$ ;  $P < 0.0005$ ).

We are perturbed by the different reporting rate in the 2 active treatment groups compared with the control series. If one assumes that some of the defaulters were patients whose high expectations of the benefit from acupressure were not fulfilled, this would give a bias towards a favourable outcome from acupressure. If, at the worst, the 20% difference in

fully completed returns between the control and treated groups consisted of equal numbers of patients who had either severe or troublesome sickness, adverse 'weighting' of the treated groups (Figure 1) still showed a beneficial effect of P6 acupressure ( $\chi^2 = 18.8$ ;  $df = 4$ ;  $P < 0.001$ ) but not for pressure at the dummy point ( $\chi^2 = 4.3$ ;  $df = 4$ ;  $P < 0.04$ ).

## Discussion

In designing the study we could not have foreseen the problems of different standards of returns in the three groups. However, it has been pointed out in a recent leading article<sup>7</sup> that studies with human subjects cannot always attain the scientific rigour that is possible in the laboratory and data should not be dismissed solely for this reason, although for logistical reasons the trial had to be completed within one year. One might question the allocation of all patients to the same study group on any given day but this was to prevent patients asking why they were treated differently from others.

We cannot exclude a psychological explanation for our findings, but the superiority of the beneficial effect of pressure at the P6 as compared with a dummy point, suggests that the former has some real therapeutic value, particularly in light of the relative effectiveness of P6 compared with dummy acupuncture in other studies<sup>2,4,5</sup>.

Acupressure is free from side effects and seldom can one honestly say to a patient, when advocating a new form of treatment that if it does not work, at least it does no harm. With the widespread publicity given to wrist bands (Sea bands) for the prevention of sea sickness, acupressure is readily accepted by patients.

In our experience with postoperative<sup>2,4</sup> and cancer chemotherapy<sup>6</sup> sickness we found the efficacy of acupuncture as an antiemetic lasted for about 8 hours. While this was a problem in these circumstances it does not matter with morning sickness which usually has passed off in a few hours as patients can repeat the pressure as required.

**Acknowledgments:** Thanks are due to the Medical and Nursing staff of the Royal Maternity Hospital, Belfast, for their cooperation in this study, for which financial support was provided by the Friar fund of the Faculty of Medicine of our University.

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(Accepted 24 November 1987)

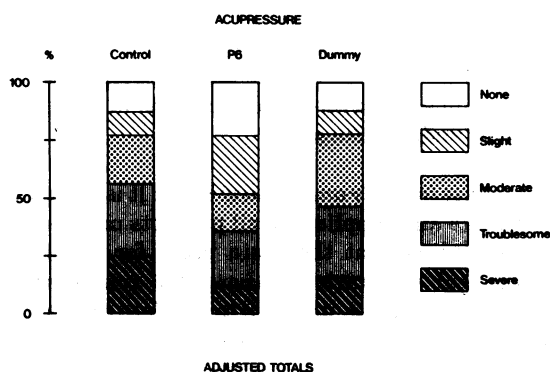


Figure 1. 'Adjusted totals' - sickness graded according to the scheme on Table 1