

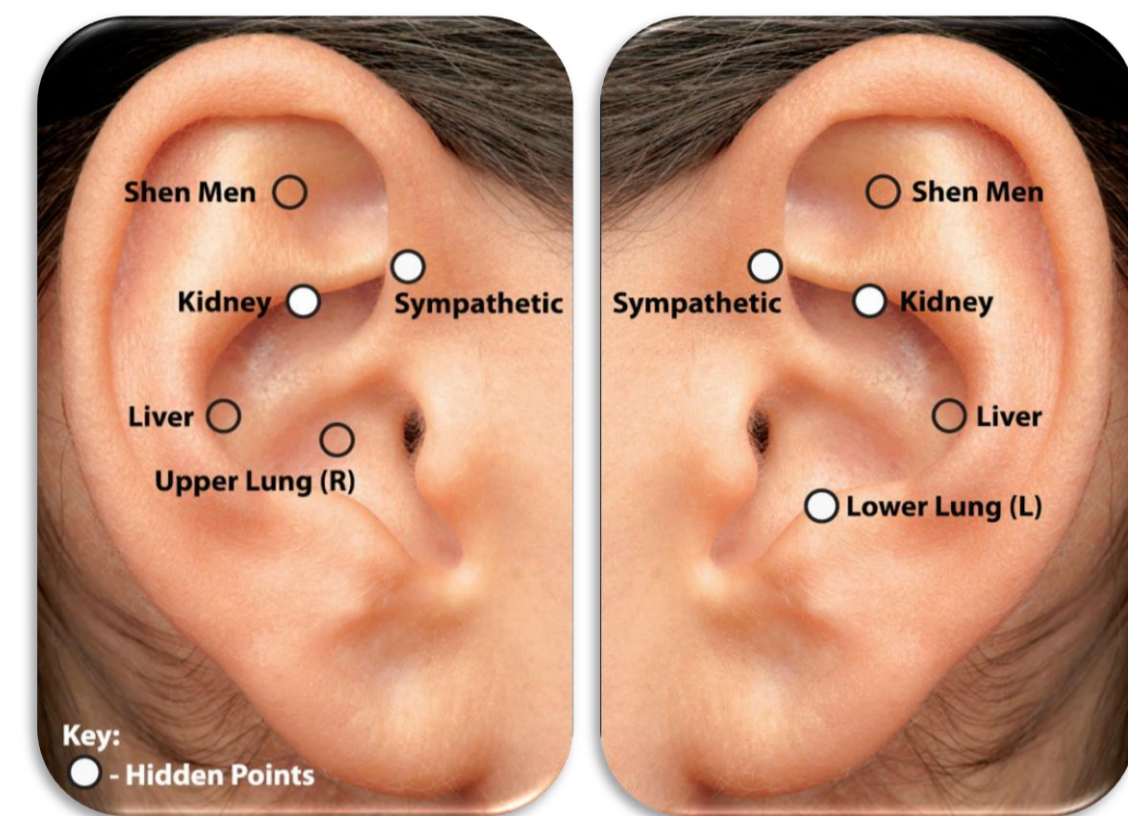
Evaluating the NADA ear acupuncture protocol to manage breast cancer treatment related hot flushes & night sweats (HF&NS)

Beverley de Valois, Teresa Young, Nicola Robinson, Christine McCourt, Jane Maher

Conducted at the Lynda Jackson Macmillan Centre, Mount Vernon Cancer Centre, Rickmansworth Road, Northwood, Middlesex, United Kingdom HA6 2RN

Introduction

As part of a series of exploratory studies into using acupuncture to manage menopausal side effects of adjuvant hormonal treatments for breast cancer, we investigated the National Acupuncture Detoxification Association (NADA) ear acupuncture protocol. Anecdotal evidence suggested that NADA treatment reduced hot flushes and night sweats (HF&NS) in substance detoxification.



This standardised protocol uses 5 acupuncture points on the surface of the ear. It is designed for use in a group setting. In the UK, it can be delivered by licensed acupuncturists and by non-acupuncturists who are trained and annually assessed by NADA UK.

Photos courtesy of NADA UK

Key Questions

- Can NADA be used to manage breast cancer treatment related HF&NS?
- Does the NADA protocol improve emotional and physical wellbeing?
- How do the results of NADA treatment compare with the results of our previous study using traditional acupuncture (TA)?

Methods

Participants

- Women age ≥ 35 years diagnosed with early breast cancer
- Without relapse or metastatic disease
- ≥ 6 months post active treatment (surgery, chemotherapy, radiotherapy)
- Taking adjuvant hormonal therapy ≥ 6 months
- Experiencing HF&NS ≥ 3 months
- Self-reporting an average of ≥ 4 HF&NS per 24-hour period.

Acupuncture protocols

- Treatment once weekly, for 8 treatments
- Using the NADA protocol delivered in small groups of up to 5 women, or
- Semi-standardised traditional acupuncture treatment (see Publications)
- Administered by a licensed acupuncturist

Measurement

- Hot Flush Diaries** – measured HF&NS frequency and severity over a 2-week period
- Women's Health Questionnaire (WHQ)** – measured 9 domains of physical and emotional wellbeing associated with the menopause transition
- Problem Rating Score (PRS)** – measured how bothersome women find their HF&NS.
- Measures were administered at :
 - Baseline** – 2 weeks prior to treatment
 - Mid-tx** – after the fourth treatment
 - EOT** – end of treatment
 - EOT+4** – 4 weeks after EOT
 - EOT+18** – 18 weeks after EOT.

Results

Recruitment and compliance

50 out of 54 women recruited completed 8 acupuncture treatments in each study.

Comparing Hot Flush and Night Sweat Frequency

- The median numbers of HF&NS per day at baseline and EOT were:
 - NADA: 10.7 (std dev=4.8) and 7.7 (std dev=4.7), n=47
 - TA: 10.7 (std dev=6.5) and 6.5 (std dev=5.3), n= 48
- The primary endpoint was the comparison at EOT.
- Reductions in frequency for both groups were significant at all time points.
- There were significant differences between groups at Mid-tx ($p=0.008$) and EOT ($p=0.038$) in favour of TA, but no significant differences at follow-up.

Comparison of Mean % Reduction in Hot Flush Frequency

Change over baseline at		N =	Mean % Reduction	95% CI Lower	95% CI Upper
Mid-tx	NADA	50	23.6	15.3	31.5
	TA	48	40.8	30.1	50.0
EOT	NADA	47	35.9	25.4	45.4
	TA	48	49.8	40.5	56.5
EOT+4	NADA	45	37.5	25.4	47.6
	TA	47	41.2	31.0	49.5
EOT+18	NADA	38	37.1	24.8	47.4
	TA	47	41.8	29.1	49.5

Comparing Emotional and Physical Wellbeing

At EOT, the WHQ domains displayed below showed significant improvement in both studies. Overall, both groups showed similar scores and levels of improvement at each time point. All changes were clinically significant (a difference of 0.10 to 0.20), apart from Depressed Mood in the TA group.

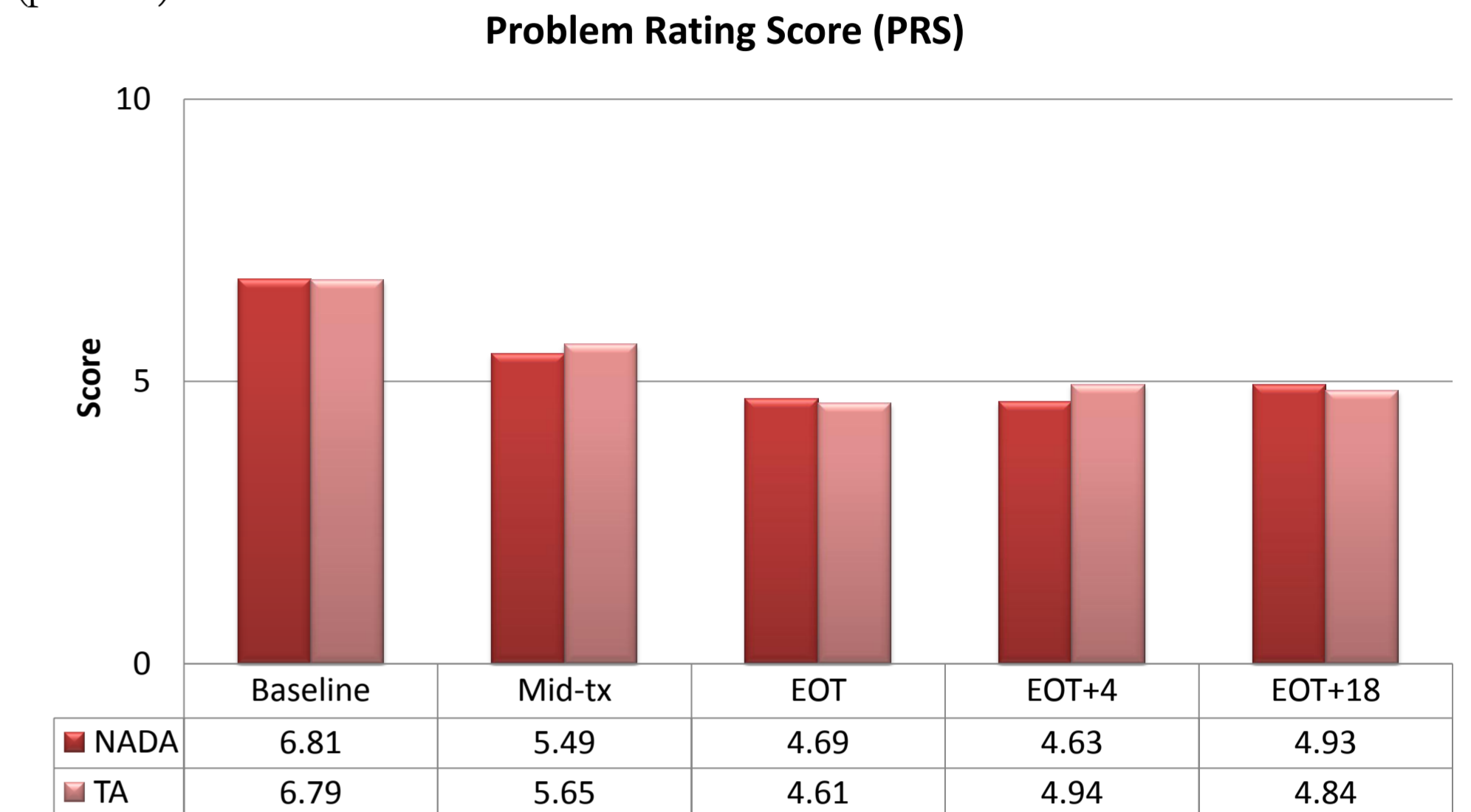
Comparison of Six WHQ Domains at Baseline and EOT

	Anxiety	Depressed Mood	Memory	Sleep	Somatic*	Vasomotor
NADA Baseline	0.30	0.24	0.63	0.63	0.45	0.98
NADA EOT	0.19	0.09	0.49	0.41	0.34	0.74
TA Baseline	0.26	0.21	0.59	0.65	0.49	0.99
TA EOT	0.09	0.16	0.31	0.40	0.34	0.83

* Somatic = Backache/pain, Dizzy spells, Frequent urination, Headache, Nausea, Tiredness, Pins and Needles

Comparing Problem Rating Scores (PRS)

PRS were similar for both groups at each measurement point. All changes within groups across time were statistically (paired *t* test) and clinically significant. There were no significant differences between groups at EOT ($p=0.87$).

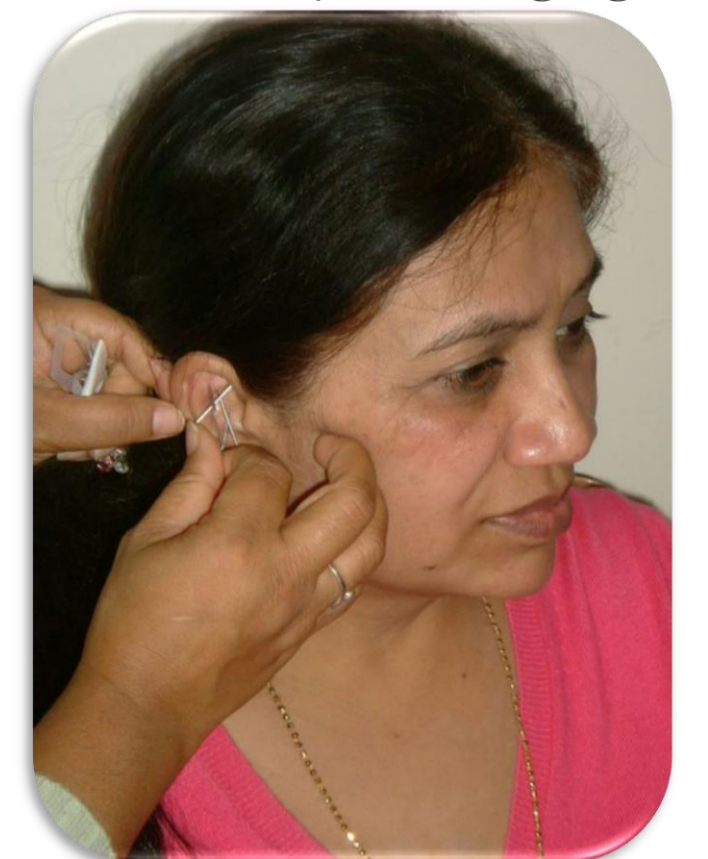


Discussion

- NADA reduced frequency of HF&NS by 35.9% after 8 treatments
- Improvements in wellbeing and problem rating scores were comparable to TA.
- NADA was less effective in reducing HF&NS than TA at Mid-tx and EOT.
- There were no significant differences in longer term outcomes.
- More frequent treatment may improve outcomes; however, the women in this study found committing to weekly treatment was sufficiently challenging.

Conclusion

This study suggests that NADA may provide a simple non-pharmacological option for managing HF&NS. Further research is warranted; NADA and TA should be compared concurrently.



Publications

- de Valois B, Young TE, Robinson N et al (2012) NADA ear acupuncture for breast cancer treatment-related hot flashes and night sweats: an observational study. *Medical Acupuncture*. 24(4):256-268
- de Valois B, Young TE, Robinson N et al (2010) Using traditional acupuncture for breast cancer-related hot flashes and night sweats. *Journal of Alternative and Complementary Medicine*. 16(10):1047-1057

Acknowledgements

Thank you to the participants in this research; to Dr Richard Ashford, Consultant Oncologist, Mount Vernon Cancer Centre, who funded the clinics; and to Rachel Peckham MSc LicAc of NADA UK for her support.

For further information contact

beverley.devalois@nhs.net

