Acupuncture and women with breast cancer: predictors of response

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Introduction

➢ Hot flashes can be a major problem for women with breast cancer. Because estrogen replacement is not recommended in these women, they have only very limited treatment options for menopausal symptoms.

➢ Recently, the ACcliMat study, a multicentric randomized clinical trial, comparing acupuncture plus enhanced self-care versus enhanced self-care alone in women with breast cancer, showed the effectiveness of acupuncture in the management of hot flashes together with other climacteric symptoms and in the improvement of quality of life.

AcCliMaT

Objective

A post hoc analysis of the ACcliMat study was conducted to evaluate demographic and clinical predictors of acupuncture response

Methods

➢ Data from the ACcliMat acupuncture group were used.

➢ The primary outcome was clinically significant improvement in hot flashes, defined as ≥75% decrease in Hot Flash Score (HFS=frequency X severity), at the end of the acupuncture treatment (responders). The secondary outcome was improvement (≥50%) in climacteric symptoms and quality of life, measured by the Greene Climacteric and MenQL scales, respectively.

➢ The following clinical and demographic characteristics were evaluated as predictors of response: age, Traditional Chinese Medicine (TCM) syndromes, education, treatment expectations, baseline outcome values, hormonal treatment.

➢ Logistic regression was used to model the potential predictors for each outcome.

➢ A descriptive analysis of the acupuncture points used was carried out.

Results

➢ 83 women who completed the acupuncture treatment were analysed; the mean age was 48.9 years; 37.4% were diagnosed with "kidney and liver yin and yang deficiency" and "liver yang rising" TCM syndromes .

➢ A clinical significant improvement in HFS was reported by 57 % of women.

➢ Acupuncture was more effective in younger women (<50 years) compared to older one (OR 3.41, 95%CI 1.14-10.15, p 0.028) (tab. 1).

➢ Higher baseline value in the physical domain of MenQL was associated with an improvement in this domain (OR 2.6, 95% CI 1.40-4.90, p 0.003).

➢ Some acupoints such as LI11, LU7, SP9, SP10, CV17 were more commonly used in women who responded to acupuncture; whereas LR2, and GV14 were used more frequently in women who didn't (tab. 2).

Table 1. Characteristics of the study population and adjusted OR of clinical improvement in hot flashes

Characteristics	All populations (n=83) n(%)	Responders (n=47) n(%)	OR adjusted (95%CI)	p-value
age				
<50	41.00 (49.40)	27 (57.45)	3.41 (1.14-10.15)	0.028
>=50	42.00 (50.60)	20 (42.55)	1	
educational qualification				
primary/secondary	23 (27.71)	11 (23.4)	1	
high school/university degree	60 (72.29)	36 (76.6)	1.36 (0.41-4.47)	0.618
TCM syndromes				
Kidney yin emptiness	14 (17.28)	7 (14.89)	0.91 (0.23-3.66)	0.893
Kidney yin and yang deficiency	13 (16.05)	7 (14.89)	0.79 (0.19-3.30)	0.749
Kidney and liver yin and yang deficiency and yang escape from liver	31 (38.27)	16 (34.04)	1	
Kidney and heart disharmony	9 (11.11)	6 (12.77)	2.26 (0.40-12.77)	0.357
Phlegm or qi stasis	14 (17.28)	11 (23.40)	3.90 (0.77-19.84)	0.101
Blood stasis	0 (0.00)	0 (0.00)		
expectation of symptom control				
mild improvement	15 (18.29)	9 (19.57)	1	
significant or complete improvement	67 (81.71)	37 (80.43)	0.64 (0.16-2.49)	0.519
hormonal treatment				
no	12 (16.46)	8 (17.02)	1	
yes	71 (85.54)	39 (82.98)	0.35 (0.07-1.85)	0.217
baseline hot flash score, mean (sd)	32.21 (25.46)	30.70 (29.03)	0.99 (0.98-1.02)	0.646

Table 2. Acupuncture points and number of stimulations by response (HFS improvement) to acupuncture .

Acupuncture points	All populations (n=83) Number of stimulations	% of total	Responders (n=47) Number of stimulations	% of total	Non-responders (n=36) Number of stimulations	% of total	p-value
KI6	353	9.8	205	9.2	148	10.8	0.117
LI11	293	8.1	198	8.9	95	6.9	0.037
PC6	265	7.3	176	7.9	89	6.5	0.117
LR2	212	5.9	97	4.3	115	8.4	0.000
SP6	205	5.7	120	5.4	85	6.2	0.305
GV14	137	3.8	65	2.9	72	5.2	0.000
LU7	134	3.7	108	4.8	26	1.9	0.000
SP9	133	3.7	114	5.1	19	1.4	0.000
SP10	129	3.6	107	4.8	22	1.6	0.000
CV17	127	3.5	106	4.7	21	1.5	0.000
CV4	116	3.2	73	3.3	43	3.1	0.819
HT7	114	3.2	53	2.4	61	4.4	0.001
KI3	114	3.2	58	2.6	56	4.1	0.014
KI7	107	3	66	3	41	3	0.959
GB20	94	2.6	47	2.1	47	3.4	0.016
BL17	93	2.6	51	2.3	42	3.1	0.154
ST40	89	2.5	72	3.2	17	1.2	0.000
LR3	86	2.4	67	3	19	1.4	0.002
YIN TANG	74	2.1	36	1.6	38	2.8	0.018
GB34	67	1.9	53	2.4	14	1	0.003
Others points	666	18.5	362	16.2	304	22.1	0.009
Total	3608		2234		1374		

Conclusions

Younger age has been identified as a predictor of acupuncture response in terms of HFS improvement, among all the variables analyzed. Besides a problem of limited sample size, our results suggest that other factors, Traditional Chinese Medicine-related, could explain differences in patients acupuncture response.

Acclimat Studio reference:

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