

# Dang-Gui-Liu-Huang-Tang, a Chinese herbal medicine formula, may relieve breast cancer patients' side effects under adjuvant chemotherapy: a randomized placebo-controlled trial.

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<b>Registration date</b> 24/10/2023	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input type="checkbox"/> Results
<b>Last Edited</b> 24/10/2023	<b>Condition category</b> Cancer	<input type="checkbox"/> Individual participant data <input type="checkbox"/> Record updated in last year

## Plain English summary of protocol

### Background and study aims

Breast cancer is one of the most common malignancies among female patients. Side effects may concern patients, and relieving side effects becomes one of the most important clinical issues during the treatment course. Therefore, relieving side effects without delaying chemotherapy becomes a critical issue.

### Who can participate?

Female breast cancer patients aged between 18 and 65 years old with prior surgery and current chemotherapy-only treatment

### What does the study involve?

After adequate randomization and allocation, Dang-Gui-Liu-Huang-Tang is given for treatment group subjects, while a placebo with similar smell and color is given for control group subjects.

The severity of side effects is used as the primary outcome, and neutrophil function is assessed as the secondary outcome.

### What are the possible benefits and risks of participating?

Dang-Gui-Liu-Huang-Tang may relieve discomforts caused by chemotherapy used in treating breast cancer, such as fatigue and vomiting.

The possible side effects, such as nausea, vomiting, and fatigue, are assessed by CTCAE 4.0 classifications, and the comparisons between control and treatment groups will be assessed.

### Where is the study run from?

The Chang Gung Memorial Hospital, Linkou, and Taoyuan branches (China)

When is the study starting and how long is it expected to run for?  
March 2008 to November 2011

Who is funding the study?  
Chang Gung Medical Foundation (CMRPG370671) (China)

Who is the main contact?  
Dr Hsing-Yu Chen, 8705016@cgmh.org.tw

## Contact information

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## Additional identifiers

**EudraCT/CTIS number**

Nil known

**IRAS number****ClinicalTrials.gov number**

Nil known

**Secondary identifying numbers**

CMRPG370671, 200800208B0

## Study information

**Scientific Title**

Dang-Gui-Liu-Huang-Tang for breast cancer patients' side effects

**Study objectives**

Dang-Gui-Liu-Huang-Tang could relieve side effects along with chemotherapy among breast cancer patients.

**Ethics approval required**

Ethics approval required

**Ethics approval(s)**

Approved 02/04/2008, Chang Gung Medical Foundation Institutional Review Board, FAO Shih-Hua Huang (No.5, Fuxing St., Gueishan Dist., 33305, Taiwan; +886-3-319-6200#3712; shihhua@cgmh.org.tw), ref: 97/1479C

**Study design**

Randomized placebo-controlled trial

**Primary study design**

Interventional

**Secondary study design**

Randomised controlled trial

**Study setting(s)**

Hospital

**Study type(s)**

Quality of life, Treatment, Efficacy

**Participant information sheet**

Not available in web format

**Health condition(s) or problem(s) studied**

Relief of side effects of chemotherapy among breast cancer patients

**Interventions**

Dang-Gui-Liu-Huang-Tang is a classic Traditional Chinese Medicine (TCM) formula commonly made for menopausal syndrome by modulating patients' immunity and endocrine imbalance. Since severe menopausal syndrome and discomforts following treatment for breast cancer could be seen among breast cancer patients, Dang-Gui-Liu-Huang-Tang is therefore used for breast cancer patients in clinical practice for symptom relief. For this reason, this study is being conducted to examine the effect of Dang-Gui-Liu-Huang-Tang as an additional therapy for breast cancer. Dang-Gui-Liu-Huang-Tang is given three times a day, 4 grams each time, along with chemotherapy for breast cancer. For example, cyclophosphamide-fluorouracil-methotrexate (CMF) chemotherapy will be given every three weeks, for a total of 9 rounds of CMF treatment; while cyclophosphamide, epirubicin, fluorouracil (CEF) will be given every three weeks, for a total of 6 rounds of CEF treatment. On the other hand, placebo medicine with similar color and smell is given at the same frequency and quantity. All enrolled patients are assigned to treatment using a number generated by a random sequence and equally distributed to two groups in 1:1 ratio. Principal investigator (PI) and co-PIs are responsible for patient evaluation; research assistants have expertise in collecting patients' information and lab data. Additionally, TCM pharmacists are responsible for delivering trial medicine to enrolled subjects. All medicines are delivered face-to-face by TCM pharmacists after recognizing the assigned number of each subject. The entire trial will be conducted in the Chang-Gung Memorial Hospital, Linkou branch, Taoyuan, Taiwan.

**Intervention Type**

Drug

**Pharmaceutical study type(s)**

Not Applicable

**Phase**

Phase II/III

**Drug/device/biological/vaccine name(s)**

Dang-Gui-Liu-Huang-Tang

**Primary outcome measure**

Side effects measured using the MD Anderson Symptom Inventory (MDASI), the Functional Assessment of Cancer Therapy - Breast (FACT-B) questionnaire and CTCAE 4.0 grading from day 0 and every three weeks

### **Secondary outcome measures**

Neutrophil function measured using a neutrophil phagocytosis assay at day 0 and every 3 weeks

### **Overall study start date**

01/03/2008

### **Completion date**

30/11/2011

## **Eligibility**

### **Key inclusion criteria**

1. Breast cancer patient receives adjuvant chemotherapy
2. Age ranges from 18 to 65 years
3. Not receiving Chinese herbal medicine within one month before enrollment
4. Adequate bone marrow reserve: platelets  $100 \times 10^9/L$ , absolute neutrophil count (ANC)  $1.5 \times 10^9/L$ , hemoglobin  $9.0g/d$ , adequate liver function tests: serum bilirubin  $<1.5mg/dL$ , ALT and AST  $<2.5 \times ULN$ , adequate renal function: creatinine  $2 mg/dL$  or estimated creatinine clearance  $>40mL/min$ , calcium  $1.2 \times ULN$
5. Diagnosed as the Traditional Chinese medicine (TCM) pattern "Qi and blood deficiency" by a TCM doctor
6. Willing to sign the informed consent

### **Participant type(s)**

Patient

### **Age group**

Adult

### **Lower age limit**

18 Years

### **Upper age limit**

65 Years

### **Sex**

Female

### **Target number of participants**

118

### **Total final enrolment**

112

### **Key exclusion criteria**

1. Patients receive concurrent therapies other than chemotherapy, such as radiotherapy or hormone therapy, or are unsuitable for chemotherapy
2. With severe underlying diseases, mental illness, and infectious diseases
3. Women with breastfeeding or pregnancy
4. Subjects with cardiovascular diseases but without adequate treatments or with a history of myocardial infarction within recent six months
5. Not diagnosed as Traditional Chinese medicine (TCM) pattern "Qi and blood deficiency"
6. Chemotherapy is stopped and will not be continued within one month
7. Any intolerant adverse events during the study period
8. Subjects with liver or renal function deteriorating, and the discontinuation of the clinical trial is requested by investigators

**Date of first enrolment**

01/11/2008

**Date of final enrolment**

30/06/2011

## **Locations**

**Countries of recruitment**

Taiwan

**Study participating centre**

**Chang Gung Memorial Hospital, Linkou branch**

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Taoyuan city

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**Study participating centre**

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## **Sponsor information**

**Organisation**

Chang Gung Medical Foundation

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**Sponsor type**

Hospital/treatment centre

**Website**

<https://www.cgmh.org.tw/>

## **Funder(s)**

**Funder type**

Research organisation

**Funder Name**

Chang Gung Medical Foundation

**Alternative Name(s)**

**Funding Body Type**

Private sector organisation

**Funding Body Subtype**

Trusts, charities, foundations (both public and private)

**Location**

Taiwan

## **Results and Publications**

**Publication and dissemination plan**

Planned publication in a high-impact peer-reviewed journal

**Intention to publish date**

31/12/2023

**Individual participant data (IPD) sharing plan**

The datasets used in this current study will be available under adequate request and approval from the IRB committee.

**IPD sharing plan summary**  
Available on request