

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

03 Jul 2026

### The effectiveness of acupressure on pain and anxiety in patients undergoing bone marrow biopsy

#### Protocol summary

##### Summary

This interventional study is double blind clinical trial that examines the acupressure effect on pain and anxiety in patients undergoing bone marrow biopsy. The participants will be randomized into three groups of 30 patients (intervention, control and placebo). Half-hour before biopsy, all patients complete Spielberger anxiety questionnaire and the vital signs will be recorded by co-researcher. In the intervention group, the acupressure will be performed using researcher's thumb on the He7 (anti-anxiety point) and the LI4 (anti-pain point). In the placebo group, the acupressure method is the same but in the different points without any anti-anxiety and anti-pain effect. No procedure will be performed in the control group. The anxiety and vital signs will be recorded again during and immediately after the biopsy. The pain will be measured using a visual analogue scale (VAS) after the biopsy was taken.

#### General information

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT201201038100N2**

Registration date: **2012-05-11, 1391/02/22**

Registration timing: **prospective**

Last update:

Update count: **0**

##### Registration date

2012-05-11, 1391/02/22

##### Registrant information

###### Name

Masoomeh Imanipour

###### Name of organization / entity

Tehran University of Medical Sciences

###### Country

Iran (Islamic Republic of)

###### Phone

+98 21 6105 4425

###### Email address

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###### Recruitment status

**Recruitment complete**

###### Funding source

Nursing and Midwifery Care Research Center

###### Expected recruitment start date

2012-08-21, 1391/05/31

###### Expected recruitment end date

2013-02-19, 1391/12/01

###### Actual recruitment start date

empty

###### Actual recruitment end date

empty

###### Trial completion date

empty

###### Scientific title

The effectiveness of acupressure on pain and anxiety in patients undergoing bone marrow biopsy

###### Public title

The effect of acupressure on pain and anxiety

###### Purpose

Treatment

###### Inclusion/Exclusion criteria

Inclusion criteria: patients who are 18-65 years old, undergo bone marrow biopsy for the first time; have no previous experience of acupressure or acupuncture; have sufficient visual acuity to mark the visual analogue scale; are able to read; are not a professional person with knowledge of biopsy procedure; have no barrier such as IV catheters preventing access to the points of acupressure. Exclusion criteria: occurrence of any problem or unexpected event during the biopsy procedure; patient's refusal to continue with the study.

###### Age

From **18 years** old to **65 years** old

### Gender

Both

### Phase

N/A

### Groups that have been masked

*No information*

### Sample size

Target sample size: **90**

### Randomization (investigator's opinion)

Randomized

### Randomization description

### Blinding (investigator's opinion)

Double blinded

### Blinding description

### Placebo

Used

### Assignment

Parallel

### Other design features

## Secondary Ids

empty

## Ethics committees

### 1

#### Ethics committee

##### Name of ethics committee

Vice-chancellor for research, Tehran University of Medical Sciences

##### Street address

6th floor, Central building of the university, corner of Ghods St., Keshavarz Blvd.

##### City

Tehran

##### Postal code

#### Approval date

2012-03-05, 1390/12/15

#### Ethics committee reference number

45519

## Health conditions studied

### 1

#### Description of health condition studied

cancer

#### ICD-10 code

C79.5

#### ICD-10 code description

Secondary malignant neoplasm of bone and bone marrow

## Primary outcomes

### 1

#### Description

pain

#### Timepoint

During and immediately after the biopsy

#### Method of measurement

visual analogue scale

### 2

#### Description

anxiety

#### Timepoint

Before, during and immediately after the biopsy

#### Method of measurement

Spielberger anxiety questionnaire

## Secondary outcomes

empty

## Intervention groups

### 1

#### Description

In the experimental group, acupuncture will be applied using the researcher thumb on the transverse fold of wrist which is directly in contact with flexor tendon, Carpal Ulnarys, known as "the seventh heart" or He7. This site is known as an anti-anxiety point in the traditional medicine. The same steps will be done in "Hugo" point or LI4 which is located in the hand, between the first and second metacarpal bones and in the traditional medicine known as an anti-pain point.

#### Category

Treatment - Other

### 2

#### Description

In the placebo group, the same method will be performed but in different points that do not have any effect on anxiety or pain in the traditional medicine.

#### Category

Placebo

### 3

#### Description

No procedure will be performed in the control group.

#### Category

Other

## Recruitment centers

### 1

#### Recruitment center

##### Name of recruitment center

Shariati Hospital

##### Full name of responsible person

##### Street address

##### City

Tehran

## Sponsors / Funding sources

### 1

#### Sponsor

**Name of organization / entity**

Nursing and Midwifery Care Research Center

**Full name of responsible person**

Dr. Reza Negarandeh

**Street address**

Nursina and Midwifery, Tehran University of Medical Sciences, Tohid sq

**City**

Tehran

**Grant name****Grant code / Reference number****Is the source of funding the same sponsor organization/entity?**

Yes

**Title of funding source**

Nursing and Midwifery Care Research Center

**Proportion provided by this source**

100

**Public or private sector**

*empty*

**Domestic or foreign origin**

*empty*

**Category of foreign source of funding**

*empty*

**Country of origin****Type of organization providing the funding**

*empty*

## Person responsible for general inquiries

**Contact****Name of organization / entity**

Nursing and Midwifery, Tehran University of Medical Sciences

**Full name of responsible person**

Zahra Alizadeh

**Position**

M.S in nursing

**Other areas of specialty/work****Street address**

Nursing and Midwifery, Tehran University of Medical Sciences ,Tohid sq.

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## Person responsible for scientific inquiries

**Contact****Name of organization / entity**

Nursing and Medwifery, Tehran University of Medical Sciences

**Full name of responsible person**

Masoomeh Imanipour

**Position**

M.S in nursing, PhD candidate in medical education

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## Person responsible for updating data

**Contact****Name of organization / entity****Full name of responsible person**

Zahra Alizadeh

**Position****Other areas of specialty/work****Street address****City****Postal code****Phone****Fax****Email****Web page address**

## Sharing plan

**Deidentified Individual Participant Data Set (IPD)**

*empty*

**Study Protocol**

*empty*

**Statistical Analysis Plan**

*empty*

**Informed Consent Form**

*empty*

**Clinical Study Report**

*empty*

**Analytic Code**

*empty*

**Data Dictionary**

*empty*