Clinical Trial Protocol
Iranian Registry of Clinical Trials

07 Nov 2026

A Comparative Study on the Effects of Acupressure at Neiguan (PC6) and Sanyinjiao (SP6) Points on Post-Cesarean Pain in Primiparous Women

Protocol summary

Study aim

Comparison of the effect of acupressure of Niguwan (pc6) and Sanyingjao (sp6) points on the severity of post-cesarean section pain in primiparous women.

Design

A controlled, parallel-group, single-blind, randomized, phase 1 clinical trial on 108 patients. R software was used for randomization.

Settings and conduct

The present study was conducted in Shahid Rahimi Hospital, Khorramabad. The aim of the study is to investigate the effectiveness of acupressure in reducing post-cesarean section pain. Participants will be randomly assigned to three intervention groups (PC6 and SP6 points) and control (sham acupressure) in a block-wise manner. The intervention will be performed twice postoperatively, and pain intensity will be measured at five time points using the VAS scale. All participants will receive routine hospital analgesics. Blinding of participants will be accomplished through the use of sham acupressure and concealed allocation with sealed envelopes. The person recording pain intensity will also be blinded to the type of intervention.

Participants/Inclusion and exclusion criteria

Primiparous women with their first cesarean delivery by a designated gynecologist at Shahid Rahimi Hospital in Khorramabad, aged between 18 and 45 years, and singletons without any diseases or problems.

Intervention groups

After selecting eligible individuals, their allocation to three intervention groups (acupressure at the PC6 point, acupressure at the SP6 point) and the control group (apparent acupressure without real pressure) will be performed using a block randomization method with a block size of six.

Main outcome variables

Reducing pain in women after cesarean section, reducing painkiller use

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20251026067766N1**
Registration date: **2025-11-04, 1404/08/13**
Registration timing: **prospective**

Last update: **2025-11-04, 1404/08/13**
Update count: **0**

Registration date

2025-11-04, 1404/08/13

Registrant information

Name

Pegah Pedram

Name of organization / entity

Country

Iran (Islamic Republic of)

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Email address

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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2025-11-08, 1404/08/17

Expected recruitment end date

2025-12-27, 1404/10/06

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

A Comparative Study on the Effects of Acupressure at Neiguan (PC6) and Sanyinjiao (SP6) Points on Post-Cesarean Pain in Primiparous Women

Public title

A Comparative Study on the Effects of Acupressure at Neiguan (PC6) and Sanyinjiao (SP6) Points on Post-Cesarean Pain

Purpose

Prevention

Inclusion/Exclusion criteria

Inclusion criteria:

Primiparous women with their first cesarean delivery by a designated gynecologist at Shahid Rahimi Hospital, Khorramabad Age between 18 and 45 years Singleton pregnancy Spinal anesthesia (not general anesthesia) to reduce the effects of side variables on pain intensity Including planned (elective) and emergency cesarean sections

Exclusion criteria:

Women who have experienced severe surgical complications during and after cesarean section (such as severe bleeding, hemorrhagic shock, damage to internal organs or severe reactions to anesthetic drugs, etc.). Mothers whose infants have been admitted to the neonatal intensive care unit (NICU). Women who leave the hospital before completing the study period. Women with underlying diseases that affect pain such as fibromyalgia, diabetic neuropathy or chronic musculoskeletal problems. Use of patient-controlled anesthesia (PCA) after cesarean section. Presence of cognitive or communication disorders that prevent proper assessment of pain. Use of strong analgesics (morphine, ketamine, methicarbamol, tramadol, opioids) that can affect the effect of the intervention. History of using acupressure or acupuncture. The presence of any skin lesions, burns, superficial or deep wounds, irritation, skin diseases (such as eczema, psoriasis) or rheumatic diseases in the area of the intervention (points SP6 and PC6).

Age

From **18 years** old to **45 years** old

Gender

Female

Phase

N/A

Groups that have been masked

- Participant

Sample size

Target sample size: **108**

Randomization (investigator's opinion)

Randomized

Randomization description

A total of 108 women who give birth by cesarean section in Rafsanjan maternity hospitals will be selected purposively based on the inclusion and exclusion criteria. They will then be randomly assigned to three groups (two intervention groups and one control group) so that both groups are identical in terms of pain intensity after cesarean section. The first person will be assigned to the groups by simple randomization and the rest will be based on the total number of samples in each location. Sampling will continue until the desired sample size is reached. Given that numerous factors can affect pain, but ultimately these factors are measured in the pre-test pain intensity, the three groups will be matched based on the pre-test pain intensity.

Blinding (investigator's opinion)

Single blinded

Blinding description

This study is designed as a single-blind clinical trial; participants will not be aware of the type of intervention they will receive (real or apparent pressure). In order to increase the validity of the results and reduce bias, in the control group, the intervention will be performed in the form of superficial touch on the acupressure point (PC6 or SP6) without applying pressure; while in the intervention group, the same points will be stimulated with standard pressure in accordance with the scientific principles of acupressure. Both types of interventions will be performed in completely identical environmental conditions and by a trained person (the principal investigator). During the study, participants will only be presented with a general explanation of "applying contact to one of the body points to investigate its effect on post-cesarean section pain" and will not be aware of the type of contact (real or apparent). To prevent the transfer of information between participants, interventions will be performed in separate rooms, with silence, minimal traffic, and no companion present. Participants are also asked not to discuss with others how they feel or what type of contact they receive during the study.

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics Committee of Lorestan University of Medical Sciences

Street address

4th kilometer of Khorramabad-Borojerd road, Medical Sciences Campus

City

Khorramabad

Province

Lorestan

Postal code

6814993165

Approval date

2025-09-23, 1404/07/01

Ethics committee reference number

1404.311.IR.LUMS.REC

Health conditions studied

1

Description of health condition studied
Women who will undergo a cesarean section
ICD-10 code
O82
ICD-10 code description
Single delivery by caesarean section

Primary outcomes

1

Description
Pain after cesarean section
Timepoint
After entering the ward immediately after cesarean section, before and after intervention in the second hour after cesarean section, before and after intervention in the fourth hour after cesarean section
Method of measurement
With the VAS scale

2

Description
amount of painkiller used
Timepoint
After entering the ward immediately after cesarean section, after intervention in the second hour after cesarean section, after intervention in the fourth hour after cesarean section
Method of measurement
medication record form

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group: After regaining consciousness, these individuals are placed in a supine position with the researcher facing them. The intervention is performed in two sessions (the second and fourth hours after cesarean section). In each session, after gentle massage of the area for 20 to 30 seconds, intermittent finger pressure is applied for 2 minutes in cycles of 5 seconds of pressure and 2 seconds of rest. The Neiguan point (PC6) is located on the inner surface of the forearm, about three fingers above the wrist crease and between the flexor carpi radialis and phallus longus tendons. The pressure is such that the researcher's fingernails change color and the mother feels warmth and mild pain.
Category
Treatment - Other

2

Description
Intervention group: After regaining consciousness, the subjects were placed in a supine position, and the researcher stood at the bedside. The intervention was performed in two sessions (the second and fourth hours after cesarean section). In each session, after gentle massage of the area for 20 to 30 seconds, intermittent finger pressure was applied for 2 minutes in cycles of 5 seconds of pressure and 2 seconds of rest. The Sanyinjiao point (SP6) is located on the inner surface of the lower leg, about three fingers above the medial ankle and behind the inner edge of the tibia. The pressure was applied in such a way that the researcher's fingernails were discolored and the mother felt warmth and mild pain.
Category
Treatment - Other

3

Description
Control group: After regaining consciousness and returning sensation in the lower limbs, the subjects will lie on their backs, with the researcher facing them. In this group, the intervention will be performed in the form of superficial touch without applying actual pressure. To maintain blinding conditions, some participants will be contacted at the Neiguan point (PC6) and others at the Sanyinjiao point (SP6). This superficial contact will last for 20 seconds, and no deep pressure will be applied so that the participants will not be able to recognize the actual type of intervention.
Category
Other

Recruitment centers

1

Recruitment center
Name of recruitment center
Shahid Rahimi Hospital
Full name of responsible person
Pegah Pedram
Street address
Azadi Square, not far from Safavi Bridge, Shahid Rahimi Educational and Medical Center
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Web page address

https://hrahimi.lums.ac.ir/

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Khoram-Abad University of Medical Sciences

Full name of responsible person

Dr. Bahram Kamarehie

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Grant name

Grant code / Reference number

Is the source of funding the same sponsor organization/entity?

No

Title of funding source

-

Proportion provided by this source

100

Public or private sector

Public

Domestic or foreign origin

Domestic

Category of foreign source of funding

empty

Country of origin

Type of organization providing the funding

Academic

Person responsible for general inquiries

Contact

Name of organization / entity

Khoram-Abad University of Medical Sciences

Full name of responsible person

Farahnaz Changaee

Position

Associate Professor

Latest degree

Ph.D.

Other areas of specialty/work

Midwifery

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Contact

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Latest degree

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Other areas of specialty/work

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Full name of responsible person

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Sharing plan

Deidentified Individual Participant Data Set (IPD)
Undecided - It is not yet known if there will be a plan to make this available
Study Protocol
Undecided - It is not yet known if there will be a plan to make this available
Statistical Analysis Plan
Undecided - It is not yet known if there will be a plan to make this available
Informed Consent Form
Undecided - It is not yet known if there will be a plan to make this available
Clinical Study Report
Undecided - It is not yet known if there will be a plan to make this available
Analytic Code
Undecided - It is not yet known if there will be a plan to make this available
Data Dictionary
Undecided - It is not yet known if there will be a plan to make this available