

Clinical Trial Protocol

Iranian Registry of Clinical Trials

18 Sep 2026

Effect of foot reflexology versus conventional massage in the third and fourth stages of labor on delivery pain and postpartum hemorrhage: a randomized clinical trial

Protocol summary

Study aim

To assess the effect of foot reflexology versus conventional massage in the third and fourth stages of labor on delivery pain and postpartum hemorrhage

Design

This is a randomized clinical trial with control group, in which eligible patients will be randomly assigned through the block randomization to the intervention and control groups

Settings and conduct

This study will be performed in the Fatemieh Hospital in Hamadan city on 76 eligible patients. The patients will be randomly assigned to the intervention and control groups through the block randomization. Blinding is not possible in this study.

Participants/Inclusion and exclusion criteria

Inclusion criteria: Age of 18 to 35 years; Multivariate 2 or 3; Gestational age between 42 and 37 weeks; Single pregnancy; Cephalic position; Natural childbirth; Exclusion criteria: Existence of fibroids; History of postpartum hemorrhage; High-risk pregnancy; Taking anticoagulants; Birth weight over 4 kg

Intervention groups

Intervention group: General massage on each foot for 4 minutes and then special reflexology for 2 minutes on each point of the uterus (inner edge of the foot and the middle point of the heel and inner ankle), pituitary points (center of the big toe) and solar network points (midline of diaphragm and foot) plus rotational pressures for 10 minutes per foot. These procedures are repeated 2 hours after delivery. Control group: General massage on each foot for 4 minutes and then rotational pressure on the outer edge of the heel for 6 minutes. These procedures are repeated 2 hours after delivery.

Main outcome variables

Primary outcome: Intensity of pain, intensity of bleeding

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20120215009014N424**

Registration date: **2022-04-26, 1401/02/06**

Registration timing: **prospective**

Last update: **2022-04-26, 1401/02/06**

Update count: **0**

Registration date

2022-04-26, 1401/02/06

Registrant information

Name

Jalal Poorolajal

Name of organization / entity

Department of Epidemiology & Biostatistics Hamadan University of Medical Sciences

Country

Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2022-05-05, 1401/02/15

Expected recruitment end date

2022-09-06, 1401/06/15

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effect of foot reflexology versus conventional massage in the third and fourth stages of labor on delivery pain and postpartum hemorrhage: a randomized clinical trial

Public title

Effect of foot reflexology versus conventional massage in the third and fourth stages of labor on delivery pain and postpartum hemorrhage

Purpose

Treatment

Inclusion/Exclusion criteria**Inclusion criteria:**

Age of 18 to 35 years; Multivariate 2 or 3; Gestational age between 42 and 37 weeks; Single pregnancy; Cephalic position; Natural childbirth;

Exclusion criteria:

Existence of fibroids; History of postpartum hemorrhage; High-risk pregnancy; Taking anticoagulants; Birth weight over 4 kg

Age

From **18 years** old to **35 years** old

Gender

Female

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **76**

Randomization (investigator's opinion)

Randomized

Randomization description

The patients will be randomly assigned to intervention and control groups using block randomization. For this purpose, we will prepare four sheets of paper, writing on two sheets the name of the intervention and on the other two sheets the name of the control. The paper sheets will be pooled, placed in a container, and randomly drawn one at a time for each patient without replacement until all four sheets are drawn. The four paper sheets will be then placed back into the container, and this action repeated until the sample size is reached.

Blinding (investigator's opinion)

Not blinded

Blinding description**Placebo**

Not used

Assignment

Parallel

Other design features**Secondary Ids**

empty

Ethics committees**1****Ethics committee****Name of ethics committee**

Ethics Committee of Hamadan University of Medical Sciences

Street address

Vice-chancellor for Research and Technology,
Hamadan University of Medical Sciences, Shahid Fahmideh Ave

City

Hamadan

Province

Hamadan

Postal code

6517838695

Approval date

2022-04-10, 1401/01/21

Ethics committee reference number

IR.UMSHA.REC.1401.038

Health conditions studied**1****Description of health condition studied**

Postpartum hemorrhage

ICD-10 code

O72

ICD-10 code description

Postpartum hemorrhage

Primary outcomes**1****Description**

Intensity of pain

Timepoint

At the first, second, third and fourth hours of labor

Method of measurement

Using the Visual Analog Scale (VAS)

2**Description**

Intensity of bleeding

Timepoint

At the first, second, third and fourth hours of labor

Method of measurement

By measuring the weight of the pads

Secondary outcomes

empty

Intervention groups**1****Description**

Intervention group: General massage on each foot for 4

minutes and then special reflexology for 2 minutes on each point of the uterus (inner edge of the foot and the middle point of the heel and inner ankle), pituitary points (center of the big toe) and solar network points (midline of diaphragm and foot) plus rotational pressures for 10 minutes per foot. These procedures are repeated 2 hours after delivery.

Category

Treatment - Other

2**Description**

Control group: General massage on each foot for 4 minutes and then rotational pressure on the outer edge of the heel for 6 minutes. These procedures are repeated 2 hours after delivery.

Category

Other

Recruitment centers**1****Recruitment center****Name of recruitment center**

Fatemieh Hospital in Hamadan city

Full name of responsible person

Samereh Ghelichkhani

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Fatemieh Hospital, Pasdaran Ave.

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Sponsors / Funding sources**1****Sponsor****Name of organization / entity**

Hamedan University of Medical Sciences

Full name of responsible person

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

Yes

Title of funding source

Hamedan University of Medical Sciences

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**

Hamedan University of Medical Sciences

Full name of responsible person

Samereh Ghelichkhani

Position

Student of Reproductive Health

Latest degree

Ph.D.

Other areas of specialty/work

Reproductive Health

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Person responsible for scientific inquiries**Contact****Name of organization / entity**

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Full name of responsible person

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Ph.D.

Other areas of specialty/work

Reproductive Health

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Person responsible for updating data**Contact****Name of organization / entity**

Hamedan University of Medical Sciences

Full name of responsible person

Dr. Jalal Poorolajal

Position

Professor of Epidemiology

Latest degree

Ph.D.

Other areas of specialty/work

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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