

Clinical Trial Protocol

Iranian Registry of Clinical Trials

12 Jul 2026

The effect of acupressure on the LV3 point of the foot and H7 point of hand on fetal heart rate pattern in fetal non-stress test

Protocol summary

Study aim

Comparison of the effect of acupressure point LV3 of foot and H7 hand on fetal heart rate pattern in non-stress fetal testing.

Design

Single blind controlled randomized trial with placebo group

Settings and conduct

Accessible sampling method and then random allocation will be used to select the research units. Thus, among the patients referred to Valiasr Hospital in Birjand, qualified research people who have informed consent and sufficient time and inclusion criteria will be selected. Blinding: Eligible study participants are kept blind from being assigned to study groups. These people are explained that they are in one of the three groups of acupressure, hand, foot and placebo, but they do not know in which group they are.

Participants/Inclusion and exclusion criteria

Inclusion criteria: consent to participate in research; single pregnancy; gestational age 37 to 42 weeks; age 18 to 35 years old; have a meal 2-4 hours before NST; no medical, midwifery and severe mental and physical problems during pregnancy; no smoking; baseline fetal heart rate between 110 to 160 beats per minute. Exclusion criteria: having a contraction; fetal heart rate less than 110 and more than 160 beats per minute; midwifery accidents include labor pains, placental abruption, umbilical cord prolapse; not wanting to continue participating in the study.

Intervention groups

The application of acupressure on the H7 point of the hand, the LV3 of the foot and the false point is rested for 30 seconds by the researcher, who exerts a pressure equivalent to 3 kg for 1 minute, and a total of 2.5 minutes for each hand.

Main outcome variables

Stress-free testing of the fetus and its components

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20200401046914N2**

Registration date: **2021-04-20, 1400/01/31**

Registration timing: **prospective**

Last update: **2021-04-20, 1400/01/31**

Update count: **0**

Registration date

2021-04-20, 1400/01/31

Registrant information

Name

Mahla Salarfard

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 56 3243 5793

Email address

salarfard.ma@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2021-06-20, 1400/03/30

Expected recruitment end date

2021-11-21, 1400/08/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of acupressure on the LV3 point of the foot and H7 point of hand on fetal heart rate pattern in in fetal non-stress test

Public title

The effect of acupressure point LV3 of the foot and H7 of the hand on stress-free testing of the fetus

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Consent to participate in research Single pregnancy Gestational age 37 to 42 weeks Age 18 to 35 years Have a meal 2-4 hours before NST No medical, midwifery and severe mental and physical problems during pregnancy, No smoking Baseline fetal heart rate between 110 to 160 beats per minute

Exclusion criteria:

Having a contraction Fetal heart rate less than 110 and more than 160 beats per minute Midwifery accidents include labor pains, placental abruption, umbilical cord prolapse Not wanting to continue participating in the study

Age

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

Gender

Female

Phase

N/A

Groups that have been masked

- Participant

Sample size

Target sample size: **90**

Randomization (investigator's opinion)

Randomized

Randomization description

It will be determined by blocking method with 3, 6 and 9 block sizes and 1: 1: 1 allocation ratio

Blinding (investigator's opinion)

Single blinded

Blinding description

Eligible study participants are kept blind from being assigned to study groups. These people are explained that they are in one of the three groups of acupressure, hand, foot and placebo, but they do not know in which group they are.

Placebo

Used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

committee of Birjand University of Medical Sciences

Street address

Birjand University of Medical Sciences, Moalem Street

City

Birjand

Province

South Khorasan

Postal code

9716813456

Approval date

2021-02-15, 1399/11/27

Ethics committee reference number

IR.BUMS.REC.1399.489

Health conditions studied

1

Description of health condition studied

Acupressure, Point LV3 and H7, fetus non stress test

ICD-10 code

P00-P96

ICD-10 code description

Certain conditions originating in the perinatal period

Primary outcomes

1

Description

Fetal non-stress test

Timepoint

Before and 20 minutes after the intervention

Method of measurement

Fetal monitoring device

2

Description

Baseline fetal heart rate

Timepoint

Before and 20 minutes after the intervention

Method of measurement

Fetal monitoring device

3

Description

Number of fetal movements

Timepoint

Before and 20 minutes after the intervention

Method of measurement

Fetal monitoring device

4

Description

Number of heart rate accelerations

Timepoint

Before and 20 minutes after the intervention

Method of measurement

Fetal monitoring device

5

Description

Impact-to-impact variability

Timepoint

Before and 20 minutes after the intervention

Method of measurement

Fetal monitoring device

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: The H7 point is inserted by the pressure researcher at a pressure of 3 kg for 1 minute, rested for 30 seconds, and a total of 2.5 minutes for each hand.

Category

Diagnosis

2

Description

Intervention group: The LV3 point is inserted by the pressure researcher at a pressure of 3 kg for 1 minute, rested for 30 seconds, and a total of 2.5 minutes for each hand.

Category

Diagnosis

3

Description

Control group: The false point is inserted by the researcher at a pressure equivalent to 3 kg for 1 minute, rested for 30 seconds, and a total of 2.5 minutes for each hand.

Category

Diagnosis

Recruitment centers

1

Recruitment center

Name of recruitment center

Valiasr Hospital of Birjand

Full name of responsible person

Mahla Salarfard

Street address

Valiasr Hospital, Ghaffari St.

City

Birjand

Province

South Khorasan

Postal code

9717964151

Phone

+98 56 3162 2001

Email

valiasr@bums.ac.ir

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Birjand University of Medical Sciences

Full name of responsible person

Dr Tooba Kazemi

Street address

Deputy of Research and Technology, Third Floor of Education and Research Building ,University of Medical Sciences, Birjand

City

Birjand

Province

South Khorasan

Postal code

9717853577

Phone

+98 56 3238 1200

Email

drtooba.kazemi@gmail.com

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Birjand 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

Birjand University of Medical Sciences

Full name of responsible person

Mahla Salarfard

Position

Instructor

Latest degree

Master

Other areas of specialty/work

Midwifery

Street address

Birjand School of Nursing and Midwifery, Moallem
Street

City

Birjand

Province

South Khorasan

Postal code

9716813448

Phone

+98 56 3243 5793

Email

Salarfard.ma@gmail.com

Person responsible for scientific inquiries

Contact

Name of organization / entity

Birjand University of Medical Sciences

Full name of responsible person

Mahla Salarfard

Position

Instructor

Latest degree

Master

Other areas of specialty/work

Midwifery

Street address

Birjand School of Nursing and Midwifery, Moallem
Street

City

Birjand

Province

South Khorasan

Postal code

9716813448

Phone

+98 56 3243 5793

Email

Salarfard.ma@gmail.com

Person responsible for updating data

Contact

Name of organization / entity

Birjand University of Medical Sciences

Full name of responsible person

Mahla Salarfard

Position

Instructor

Latest degree

Master

Other areas of specialty/work

Midwifery

Street address

Birjand School of Nursing and Midwifery, Moallem
Street

City

Birjand

Province

South Khorasan

Postal code

9716813448

Phone

+98 56 3243 5793

Email

Salarfard.ma@gmail.com

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