Clinical Trial Protocol
Iranian Registry of Clinical Trials

07 Nov 2026

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

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

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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.
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9717964151
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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
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Postal code
9717853577
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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
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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