Clinical Trial Protocol
Iranian Registry of Clinical Trials

01 Jun 2026

The effect of acupressure on jyanjyng points and entonox on labour pain and delivery time in nulliparous women

Protocol summary

Summary

General Purpose: To evaluate the effects of jianjing with entonox on labour pain and delivery time In nulliparous women. Inclusion criteria included: nulliparous women aged eighteen to Thirty-five years old; educated; singleton pregnant women with gestational age Thirty-seven to forty-one weeks, cephalic presentation; Iranian; tend to use analgesia (Entonox Gas or acupressure); women in active phase of labor; not suffering from anatomic and mental disorders and high-risk pregnancies. Exclusion criteria: any factor that would lead to cesarean; lack of desire to continue to decrease. A total of 174 women in labour were randomly divided into the Acupressure group, Entonox group and the control group. After obtaining a referral from the Department of Shahid Beheshti University of Medical Sciences and present it to the Alborz University of Medical Sciences, visiting the maternity ward of Hazrat Ali Hospital and selectiing qualified individuals that will agree will be done. In acupressure group, pressure on jianjing acupoint on dilatation of 4-5 cm, 6-7 cm and 8-10 cm will be performed and continue for about twenty minutes. The Entonox group will use the gas in the active phase of labour and how to use will be told. The control group will not have any interference. Labor pain will be measured three times using a subjective labour pain scale (visual-analogue scale). Length of delivery time will be calculated in two stages: from 4 cm cervical dilation to full cervical dilatation, and full cervical dilatation to the delivery.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201312106807N11**
Registration date: **2014-06-12, 1393/03/22**
Registration timing: **retrospective**
Last update:
Update count: **0**

Registration date

2014-06-12, 1393/03/22

Registrant information

Name

Sedigheh Amir Ali Akbari

Name of organization / entity

Shahid Beheshti University of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

+98 21 2272 9240

Email address

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Recruitment status

Recruitment complete

Funding source

Ṡhahid Beheshtii University of Medical Sciences

Expected recruitment start date

2013-10-29, 1392/08/07

Expected recruitment end date

2014-03-27, 1393/01/07

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of acupressure on jyanjyng points and entonox on labour pain and delivery time in nulliparous women

Public title

Effects of jianjing with entonox on labour pain and duration of labour

Purpose

Supportive

Inclusion/Exclusion criteria
Inclusion criteria: nulliparous women aged 18 to 35 years; be literate; singleton pregnant with gestational age 37 to 41 week; cephalic presentation; Iranian; tend to use analgesia (entonox gas or acupressure); women in the active phase of labor (3-4 centimeters cervical dilatation) or before; not suffering from poor mental health and anatomic (psychosis, schizophrenia, abnormalities of the uterus and pelvic); not having any head injury with some degree of lack of alertness, pneumothorax, and if such injury, atherosclerosis, poisoning and damage to the facial nerve; No risk to patients paced for chronic disease such as heart disease, pulmonary hypertension and diabetes; absence of high risk pregnancy such as gestational hypertension, decreased fetal movement, intrauterine growth restriction, fetal death, oligohydramnios and polyhydramnios and rupture of memberane more than 12 hours; a history of infertility; no risk of skin ailments such as eczema and infection of the skin surface.
Exclusion criteria: any factor that would lead to a cesarean section; lack of desire to continue.

Age
No age limit

Gender
Female

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **174**

Randomization (investigator's opinion)
Randomized

Randomization description

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
Shahid beheshti University of Medical Sciences

Street address
Velenjak street, Shahid Chamran freeway, Tehran, Iran

City
Tehran

Postal code

Approval date
2013-10-28, 1392/08/06

Ethics committee reference number
400/501

Health conditions studied

1

Description of health condition studied
Pain intensity and duration of delivery

ICD-10 code
080-084

ICD-10 code description
Delivery

Primary outcomes

1

Description
Pain intensity of delivery

Timepoint
Pain intensity in 4-5, 6-7 and 8-10 dillatation befor and after intervention

Method of measurement
visual-analogue scale

2

Description
Duration of delivery

Timepoint
First stage and second stage of labor

Method of measurement
Time

Secondary outcomes

empty

Intervention groups

1

Description
In the acupressure group, women receive the acupressure on the point jianjing. The 20-minute periodic acupressure on GB21 acupoint will performed at dilatation of 4-5, 6-7 and 8-10.(pressure on uterine contraction). Pressure will be applied deeply until the color of nail changes slightly. Labor pain will measured three times using a subjective labor pain scale (visual-analogue scale) immediately after the intervention. Length of delivery time will be calculated in first and second stage of labour.

Category
Prevention

2

Description
In the entonox group, women receive the entonox at the

beginning of the active phase of labor (cervical dilatation 4 cm) after learning how to use it. Labor pain will measured three times using a subjective labor pain scale. Length of delivery time will be calculated in first and second stage of labor. Labor pain will measured three times using a subjective labor pain scale (visual-analogue scale) immediately after the intervention. Length of delivery time will be calculated in first and second stage of labor.

Category

Prevention

3

Description

In the control group,no intervention will be done. Labor pain will measured three times using a subjective labor pain scale. Length of delivery time will be calculated in first and second stage of labor.

Category

Prevention

Recruitment centers

1

Recruitment center

Name of recruitment center

Hazrate ali Hospital

Full name of responsible person

Street address

City

Karaj

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Shahid Beheshti University of Medical Sciences

Full name of responsible person

Dr.Masoume Simbar

Street address

Nursing and midwifery faculty, Niayesh Intersection, Tehran

City

Tehran

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Shahid Beheshti University of Medical Sciences

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

Shahid Beheshti University of Medical Sciences

Full name of responsible person

Sedigheh Amir Ali Akbari

Position

Ph.D of Midwifery

Other areas of specialty/work

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Person responsible for scientific inquiries

Contact

Name of organization / entity

Shahid Beheshti University of Medical Sciences

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khadijeh Naeemaei Aali

Position

Master of Midwifery

Other areas of specialty/work

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Web page address

Person responsible for updating data

Contact

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