

Clinical Trial Protocol

Iranian Registry of Clinical Trials

07 Jun 2026

The effect of citrus aurantium essential oil on the severity of pain in the first and second stages of labor and childbirth Satisfaction with delivery in primegravida women

Protocol summary

Study aim

the effect of Spring orange essential oil on the severity of pain in the first and second stages and satisfaction of childbirth

Design

the researcher will start sampling available (easy) after obtaining the informed consent of the eligible women. The research units will then be assigned to two intervention and control groups using quadruple blocks.

Settings and conduct

In Allameh Behloul Gonabadi Hospital, the samples were randomly assigned to one of the two experimental or control groups. After obtaining informed consent at the beginning of the active delivery phase (3-4 cm dilatation) in the intervention group, 4 ml of spring orange essential oil is poured on the absorbable, odorless and one-size napkin and attached to the collar of their clothes with a pin. In the control group, instead of spring essential oil, distilled water is given to mothers.

Participants/Inclusion and exclusion criteria

Nulliparous or multi gaviid one to three; age between 18-18 years old; education in reading and writing; pregnancy age between 40-38 weeks; live embryo; single, ceramic display and without abnormalities; fetal weight between 4000-2500 g; uterine contractions spontaneously; cervical dilatation 5-4 cm; healthy embryonic embryos; no clear pelvic stenosis; fetal heart rate in the normal range; lack of a history of diseases such as heart disease, diabetes,; no history of pregnancy problems and complications such as hypertension, preeclampsia ...; no history of mental disorders; no addiction to drugs; absence of cesarean section or stimulation of labor pains; lack of olfactory problems and sensitivity to herbal medicines, not taking certain medications.

Intervention groups

Giving spring orange essential oil to participants in the

intervention group and giving distilled water to research units in the control group.

Main outcome variables

The severity of labor pains and childbirth satisfaction

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20190123042469N2**

Registration date: **2020-06-13, 1399/03/24**

Registration timing: **registered_while_recruiting**

Last update: **2020-06-13, 1399/03/24**

Update count: **0**

Registration date

2020-06-13, 1399/03/24

Registrant information

Name

Sedighesadat Kazeminia

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 51 4467 1441

Email address

kazemigh60@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2020-05-22, 1399/03/02

Expected recruitment end date

2021-07-23, 1400/05/01

Actual recruitment start date

empty

Actual recruitment end date
empty

Trial completion date
empty

Scientific title
The effect of citrus aurantium essential oil on the severity of pain in the first and second stages of labor and childbirth Satisfaction with delivery in primegravid women

Public title
The effect of spring orange essential oil on the severity of pain and maternity satisfaction

Purpose
Supportive

Inclusion/Exclusion criteria
Inclusion criteria:
Nulliparous or Multi Gravid are one to three The age should be between 35-18 years. Pregnancy based on early pregnancy or LMP ultrasound between 40-38 weeks. The weight of the fetus should be between 4000-2500 grams according to Johnson's law. The uterine contractions have started automatically. Alternate every 5 to 10 minutes and the duration is 20 to 35 seconds. Cervical dilatation should be 5-4 cm. The fetal membranes are healthy or if the rupture of the mammals is not more than 12 hours after the rupture of the mammals. It should not be obvious in the examination of pelvic stenosis. The fetal heart rate should be in the normal range and there should be no abnormal pattern of heart rate. History of diseases such as heart disease, diabetes, hypertension, name, anemia, hepatitis No history of pregnancy problems and complications such as hypertension, preeclampsia, no threat of miscarriage. No history of mental disorders. Odor problems and sensitivity to herbal medicines, do not have perfumes according to the person's opinion. Do not take any special medicine.
Exclusion criteria:
Prohibited for normal delivery

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: **80**

Randomization (investigator's opinion)
Not randomized

Randomization description

Blinding (investigator's opinion)
Single blinded

Blinding description
Research units are not informed of their placement in one of the study groups.

Placebo

Used

Assignment
Parallel

Other design features

Secondary Ids
empty

Ethics committees

1

Ethics committee
Name of ethics committee
Ethics committee of Gonabad University of Medical Sciences
Street address
Imam Street, Gonabad University of Medical Sciences
City
Gonabad
Province
Razavi Khorasan
Postal code
9691793718
Approval date
2020-01-27, 1398/11/07
Ethics committee reference number
IR.GMU.REC.1398.151

Health conditions studied

1

Description of health condition studied
The severity of pain and the satisfaction of childbirth

ICD-10 code
O60-75

ICD-10 code description
Complications of labour and delivery

Primary outcomes

1

Description
The severity of labor pains

Timepoint
From the beginning of the active phase of labor until the end of the second stage of labor

Method of measurement
Visual scale of pain

2

Description
Childbirth Satisfaction

Timepoint
6 hours after delivery

Method of measurement
McKay Satisfaction Questionnaire

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: From the beginning of the active phase of delivery until the end of the second stage of delivery in the intervention group, 4 ml of spring orange essential oil is poured on the absorbable handkerchief, smells and is the same size and is attached to the collar of their clothes with a pin.

Category

Treatment - Other

2

Description

Control group: From the beginning of the active phase of delivery until the end of the second stage of delivery in the intervention group, 4 ml of distilled water is poured on the non-absorbable, odorless and one-size-fits-all handkerchief and attached to the collar of their clothes with a pin Is replaced.

Category

Placebo

Recruitment centers

1

Recruitment center

Name of recruitment center

Allameh Behloul Gonabadi Hospital

Full name of responsible person

Narges Bahri

Street address

Imam Street, Gonabad University of Medical Sciences

City

Gonabad

Province

Razavi Khorasan

Postal code

9691793718

Phone

+98 51 5722 5027

Email

nargesbahri@yahoo.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Gonabad University of Medical Sciences

Full name of responsible person

Javad Bazeli

Street address

Imam Street, Gonabad University of Medical Sciences

City

Gonabad

Province

Razavi Khorasan

Postal code

9691793718

Phone

+98 51 5722 5027

Email

Riasat@gmu.ac.ir

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Gonabad 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

Gonabad University of Medical Sciences

Full name of responsible person

Narges Bahri

Position

Associate Professor of Gonabad University of Medical Sciences

Latest degree

Ph.D.

Other areas of specialty/work

Midwifery

Street address

Imam Street, Gonabad University of Medical Sciences

City

Gonabad

Province

Razavi Khorasan

Postal code

9691793718

Phone

+98 51 5722 5027

Email

nargesbahri@yahoo.com

Person responsible for scientific inquiries

Contact

Name of organization / entity

Gonabad University of Medical Sciences

Full name of responsible person

Narjes Bahri

Position

Associate Professor of Gonabad University of Medical Sciences

Latest degree

Ph.D.

Other areas of specialty/work

Midwifery

Street address

Imam Street, Gonabad University of Medical Sciences

City

Gonabad

Province

Razavi Khorasan

Postal code

397

Phone

+98 51 5722 5027

Email

nargesbahri@yahoo.com

Person responsible for updating data

Contact

Name of organization / entity

Gonabad University of Medical Sciences

Full name of responsible person

Narjes Bahri

Position

Associate Professor of Gonabad University of Medical Sciences

Latest degree

Ph.D.

Other areas of specialty/work

Midwifery

Street address

Imam Street, Gonabad University of Medical Sciences

City

Gonabad

Province

Razavi Khorasan

Postal code

۹۶۹۱۷۹۳۷۱۸

Phone

+98 51 5722 5027

Email

nargesbahri@yahoo.com

Sharing plan

Deidentified Individual Participant Data Set (IPD)

No - There is not a plan to make this available

Justification/reason for indecision/not sharing IPD

No more information

Study Protocol

No - There is not a plan to make this available

Statistical Analysis Plan

No - There is not a plan to make this available

Informed Consent Form

No - There is not a plan to make this available

Clinical Study Report

No - There is not a plan to make this available

Analytic Code

No - There is not a plan to make this available

Data Dictionary

No - There is not a plan to make this available