Clinical Trial Protocol
Iranian Registry of Clinical Trials

18 Sep 2026

The effect of lavender oil inhalation on anxiety level and cortisol concentration of open-heart surgery patients

Protocol summary

Summary

This study compared the effects of lavendula essence inhalation on the level of anxiety and cortisol concentrations in heart surgery patients . Inclusion criteria included people over 18 years, more than 20 anxiety score on Spielberger questionnaire, lack of drug addiction, no history of allergies to plants, non-psychiatric and anti-anxiety drugs, no diabetes, no steroid use In the past 3 months and the patient's desire to withdraw from the study is the exclusion criteria. The study population of90 patients with cardiac surgery in kordkuy hospital are participating in this study .Intervention methods: the morning of surgery, after completing the consent form, demographic and vital signs measured and recorded and the gauges Spielberger Anxiety Inventory, which contains 20 questions to be completed and blood 2cc is to measure cortisol. The patients in the intervention group paper impregnated with 2 drops of lavender essential oil for 20 minutes and the control group paper impregnated with 2 drops of distilled water to be inhaled. After 20 minutes, once a patient has completed the questionnaire, and blood samples were taken and vital signs are recorded.Then the group of patients treated with 2 drops of essential oil of lavender cloth for 20 minutes and the control group tissues impregnated with 2 drops of distilled water to be inhaled. After 20 minutes completing the questionnaire and blood samples taken by patient and vital signs are recorded. Mdtkhlh for all patients between 7:30 to 8:30 in the morning is done.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201202068929N1**
Registration date: **2012-08-30, 1391/06/09**
Registration timing: **registered_while_recruiting**
Last update:
Update count: **0**

Registration date

2012-08-30, 1391/06/09

Registrant information

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Recruitment status

Recruitment complete

Funding source

Golestan University of Medical Sciences

Expected recruitment start date

2012-06-21, 1391/04/01

Expected recruitment end date

2012-11-21, 1391/09/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of lavender oil inhalation on anxiety level and cortisol concentration of open-heart surgery patients

Public title

effect of aromatherapy on anxiety

Purpose

Supportive

Inclusion/Exclusion criteria

Inclusion criteria: Patients candidates for cardiac surgery ; age more than 18 yearS ; admitted in post ccu day before surgery ; ability for read and write, score over 20 on the Spielberger questionnaire ; no history of previous heart surgery ; no history of allergies to plants ; non-impaired sense of smell ; no acute pain at the time of intervention ; lack of drug addiction ; lack of psychiatric drugs use ; fill out the consent form . Exclusion criteria :Patients tend to withdraw from the study .

Age
From **18 years** old to **90 years** old

Gender
Both

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **90**

Randomization (investigator's opinion)
Randomized

Randomization description

Blinding (investigator's opinion)
Single blinded

Blinding description

Placebo
Used

Assignment
Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
Golestan University of Medical Sciences

Street address
Golestan University of Medical Sciences , Shastkola , Gorgan

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Gorgan

Postal code

Approval date
2012-05-01, 1391/02/12

Ethics committee reference number
35/340/پ/گ

Health conditions studied

1

Description of health condition studied
anxiety

ICD-10 code
F41.1

ICD-10 code description
Generalized anxiety disorder

Primary outcomes

1

Description
anxiety

Timepoint
befor and after intervention

Method of measurement
Spielberger questionnaire

2

Description
cortisl

Timepoint
befor and after intervention

Method of measurement
blood sample

Secondary outcomes

1

Description
vital sign

Timepoint
befor and after intervention

Method of measurement
Manometer- inspection

Intervention groups

1

Description
Iintervention group :Inhalation of 2 drop of lavender oil for 20 minute on the morning of surgery.

Category
Placebo

2

Description
Control group : inhalation of two drops of distilled water as placebo for 20 minute on a gas on the morning of surgery .

Category
Placebo

Recruitment centers

1

Recruitment center

Name of recruitment center
Amiralmomenin Hospital of Kordkouy

Full name of responsible person

Alemeh Heydari
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Amiralmomenin Hospital , Jangal avenue , Kordkouy
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Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Golestan University of Medical Sciences
Full name of responsible person
Dr Mohsen Arabi
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Shastkola , Golestan University of Medical Sciences , Gorgan
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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
Golestan 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

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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*