Clinical Trial Protocol
Iranian Registry of Clinical Trials

16 Sep 2026

The effect of aromatherapy lavender and initial training on anxiety before surgery

Protocol summary

Summary

Abstract Objectives: The present study has been conducted with the objective of investigating the effect of lavender essential oil on the anxiety, hemodynamic changes, and pain using the aromatherapy method. Acceptance criteria Contains: grade 1 and 2 elective surgery with general anesthesia; the absence of cardiovascular disease and chronic diseases such as diabetes, hypertension and COPD (breathing problems); neurological or allergic; Having ages between 18 - 40 years. Exclusion criteria Contains: Patients within 24 hours of sedatives, narcotics, housing; also symptoms of hives have no history of allergy; as well as multiple attempts (more than 1 times) in intubation. Methods: This single-blinded clinical trial study was performed on 64 patients candidate for surgery with average anxiety score (46-56). The samples were divided into two equal groups (N=32 in each group). The first group had lavender aromatherapy for 20 min and the second group had aromatherapy with distilled water for 20 min. Finally, the levels of hemodynamic changes, were investigated using the Spielberger State-Trait Anxiety (STAI) questionnaire once at the night before surgery and once on the day of surgery after aromatherapy.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2016120229870N2**
Registration date: **2017-09-18, 1396/06/27**
Registration timing: **retrospective**

Last update:
Update count: **0**

Registration date

2017-09-18, 1396/06/27

Registrant information

Name
Reza Heydarifar
Name of organization / entity
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Recruitment status

Recruitment complete

Funding source

Baqiyatallah University of Medical Sciences

Expected recruitment start date

2015-05-22, 1394/03/01

Expected recruitment end date

2016-06-21, 1395/04/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of aromatherapy lavender and initial training on anxiety before surgery

Public title

The effect of lavender and initial training on anxiety before surgery

Purpose

Prevention

Inclusion/Exclusion criteria

Sample acceptance criteria including grade 1 and 2 elective surgery with general anesthesia; the absence of cardiovascular disease and chronic diseases such as diabetes, hypertension and COPD (breathing problems),

neurological or allergic ; age is 18-40 years Exclusion criteria: patients within 24 hours of sedatives, narcotics, housing ; communicate with their patients after induction difficult ;also symptoms of hives have no history of allergy; as well as multiple attempts (more than 1 times) in intubation ;the age of more than 50 and less than 20 ;patients who have respiratory problems and asthma and smell problems

Age
From **18 years** old to **40 years** old

Gender
Both

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **96**

Randomization (investigator's opinion)
Not randomized

Randomization description

Blinding (investigator's opinion)
Double blinded

Blinding description

Placebo
Used

Assignment
Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
Baqiyatallah University of Medical Sciences

Street address
Vanak, Vanak Square, St. Molla Sadra, Baqiyatallah hospital

City
Tehran

Postal code

Approval date
2015-10-26, 1394/08/04

Ethics committee reference number
IR.BMSU.REC.1394.175

Health conditions studied

1

Description of health condition studied
anxiety

ICD-10 code
F40

ICD-10 code description
Phobic anxiety disorders

Primary outcomes

1

Description
Hemodynamic changes

Timepoint
Once before the surgery and continued respectively 13,10,1 and 15 minutes after intubation

Method of measurement
monitoring

Secondary outcomes

empty

Intervention groups

1

Description
The intervention group for 20-10 minutes to inhale the aroma gauze containing two drops of essential oil

Category
Treatment - Drugs

2

Description
Intervention in the control group for 20-10 minutes inhaling sterile gauze containing two drops of water

Category
Placebo

Recruitment centers

1

Recruitment center

Name of recruitment center
Mother Hospital

Full name of responsible person
Reza Heydarifar

Street address
Alley 7, Dureshahr St

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Qom

Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Baqiyatallah University of Medical Sciences

Full name of responsible person
Mehdi Mesri

Street address
Baqiyatallah Hospital, St. Molla Sadra, Vanak Square, Vanak

City
Tehran
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Baqiyatallah 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