Clinical Trial Protocol
Iranian Registry of Clinical Trials

07 Nov 2026

The effect of inhalation aromatherapy on anxiety level of patients candidate for Coronary Artery Bypass Graft (CABG)

Protocol summary

Summary

Anxiety and stress is one of the factors that increases mortality risk in the patients with heart disease. The aim of this study is to assess the effect of inhalation aromatherapy on the anxiety level of patients who are candidate for coronary artery bypass graft. Design of this study is a randomized controlled clinical trial. A total of 90 patients with age of 40-80 years old; without history of mental illnesses, epilepsy, asthma, thyroid dysfunction, olfactory dysfunction, allergy to the odor of the plants specially plants of orange and Lavender, smoking and drug addiction were selected. Then the samples randomly were allocated in to three groups: control group who inhaled the usual odor of the ward; experimental group(1) who inhaled cotton containing two drops of 100% Lavender essential oil and experimental group(2) who inhaled cotton containing two drops of 100% orange essential oil. The interventions were performed on the morning of the surgery. In order to data collection at first, at the day before surgery, the DASS questionnaire was filled out by the patients and physiologic criteria were assessed by the nurse. Again these stages were performed immediately and 30 minutes after the interventions. In this study, primary outcome measures are anxiety and stress and secondary outcome measures are blood pressure, pulse, respiration and depression.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201309307565N2**
Registration date: **2014-01-11, 1392/10/21**
Registration timing: **registered_while_recruiting**

Last update:
Update count: **0**

Registration date

2014-01-11, 1392/10/21

Registrant information

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Nahid Rajai
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Recruitment status

Recruitment complete

Funding source

AJA university of Medical Science

Expected recruitment start date

2013-04-09, 1392/01/20

Expected recruitment end date

2014-04-09, 1393/01/20

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of inhalation aromatherapy on anxiety level of patients candidate for Coronary Artery Bypass Graft (CABG)

Public title

Effect of inhalation aromatherapy on anxiety level of the patients candidate for Coronary Artery Bypass Graft (CABG)

Purpose

Prevention

Inclusion/Exclusion criteria

Inclusion criteria: age of 40 - 80 years old; being literate; without history of mental illnesses, epilepsy, asthma, thyroid and olfactory dysfunction, allergy to the odor of plants specially plants of orange and Lavender, smoking and drug addiction, mechanical ventilation at the time of study; the first experience of surgery of coronary artery bypass graft; willingness to participant in the study. Exclusion criteria: refuse to continue corporation in this study.

Age

From **40 years** old to **80 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)

Not blinded

Blinding description

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

AJA university of Medical Science

Street address

AJA university of Medical Science, next to Emam Reza hospital, Etemadzadeh street, west Fatemi street.

City

Tehran

Postal code

Approval date

2013-02-19, 1391/12/01

Ethics committee reference number

9210

Health conditions studied

1

Description of health condition studied

Coronary artery bypass graft surgery

ICD-10 code

151.6

ICD-10 code description

Primary outcomes

1

Description

Anxiety

Timepoint

The day before surgery, immediately after intervention and 30 min after intervention

Method of measurement

DASS questionnaire

2

Description

Stress

Timepoint

The day before surgery, immediately after intervention and 30 min after intervention

Method of measurement

DASS questionnaire

Secondary outcomes

1

Description

Blood pressure

Timepoint

The day before surgery, immediately after intervention and 30 min after intervention

Method of measurement

Sphygmomanometer

2

Description

Respiratory rate

Timepoint

The day before surgery, immediately after intervention and 30 min after intervention

Method of measurement

Counting the chest movements

3

Description

Pulse

Timepoint

The day before surgery, immediately after intervention and 30 min after intervention

Method of measurement

Counting the radial pulse

4

Description

Depression

Timepoint
The day before surgery, immediately after intervention and 30 min after intervention
Method of measurement
DASS questionnaire

Intervention groups

1

Description
In the experimental group (1): At once, a piece of cotton was placed inside the container of 10 cc and using a dropper, two drops of 100 % Lavender essential oil were poured on the cotton. Then, the container was given to the patient and asked to smell it from a distance of 5 cm of the nose, for 20 min.
Category
Prevention

2

Description
In the experimental group (2): At once, a piece of cotton was placed inside the container of 10 cc and using a dropper, two drops of 100 % orange essential oil were poured on the cotton. Then, the container was given to the patient and asked to smell it from a distance of 5 cm of the nose, for 20 min.
Category
Prevention

3

Description
In the control group: patients didn't receive any special intervention and they just smell usual odor of the ward.
Category
Prevention

Recruitment centers

1

Recruitment center
Name of recruitment center
Fajr hospital
Full name of responsible person
Street address
Fajr hospital, Fajr street, Piroozi street.
City
Tehran

2

Recruitment center
Name of recruitment center
Army 502 hospital
Full name of responsible person
Street address
Army 502 hospital, the corner of Bahar street, Taleghani street.
City
Tehran

3

Recruitment center
Name of recruitment center
Besat hospital
Full name of responsible person
Street address
Besat hospital, Hejrat boulevard, Takhti three ways, Afsarieh autobahn.
City
Tehran

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
AJA University of Medical Sciences
Full name of responsible person
MS Nakhai
Street address
AJA University of Medical Sciences, next to Imam Reza hospital, Etemadzadeh street, west Fatemi street, Tehran.
City
Tehran
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
AJA 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
AJA Faculty of Nursing
Full name of responsible person
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Position
Master of Neonatal Intensive Care
Other areas of specialty/work
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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