

Clinical Trial Protocol

Iranian Registry of Clinical Trials

26 Jun 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

Name

Nahid Rajai

Name of organization / entity

Tehran University of Medical Sciences, Nursing College

Country

Iran (Islamic Republic of)

Phone

+98 21 3330 6949

Email address

n-rajai@razi.tums.ac.ir

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

Nahid Rajai

Position

Master of Neonatal Intensive Care

Other areas of specialty/work

Street address

AJA Faculty of Nursing, next to the Family hospital, kaj street, Shariati street.

City

Tehran

Postal code**Phone**

+98 21 7750 0404

Fax**Email**

nahid.rajai@yahoo.com

Web page address**Person responsible for scientific inquiries****Contact****Name of organization / entity**

AJA Faculty of Nursing

Full name of responsible person

Nahid Rajai

Position

Master of Neonatal Intensive Care

Other areas of specialty/work**Street address**

AJA Faculty of Nursing, next to the Family hospital, Kaj street, Shariati street.

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Postal code**Phone**

+98 21 7750 0404

Fax**Email**

nahid.rajai@yahoo.com

Web page address**Person responsible for updating data****Contact****Name of organization / entity**

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Tehran

Postal code**Phone**

00

Fax**Email**

n-rajai@razi.tums.ac.ir

Web page address**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