

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

Comparison of aromatherapy with essential oils of orange and red flowers on pain after abdominal surgery

Protocol summary

Summary

The present research is a clinical trial which aims to make a comparison between the effect of aromatherapy with orange essential oil and rose essential oil on the pain intensity after abdominal surgery. After receiving code of ethics from Arak University of Medical Sciences and coordinating with Vali-e-Asr hospital, the sampling from surgery ward of this hospital started. The research sample was selected in terms of the inclusion criteria including: 1- patients should be between 18-40 years old, 2- patients should not suffer from acute and chronic pains, 3- patients should not suffer from vision problems, 4- patients should not suffer from mental problems, 5- patients' sense of smell should be sound, 6- patients should not suffer from any respiratory problems or allergic rhinitis, and 7- patients should not have any experience of hospitalization or medical measures due to mental problems. Also, the exclusion criteria include 1- patients use the other herbal extracts simultaneously, 2- respiratory problems or allergic rhinitis emerge during intervention, and 3- the occurrence of a crisis or an unexpected event during intervention. The sample volume of this research involved 120 patients who were selected using random sampling method and assigned into three groups: 1- aromatherapy with orange essential oil group (40 patients), 2- aromatherapy with rose essential oil group (40 patients) and 3- control group. After obtaining informed consent from the patients, the personal information questionnaire was completed by the researcher through interview with the patient. In the aromatherapy group, during 12 hours after the surgery (immediately after that the patient regains full consciousness, 4, 8, and 12 hours after operation), 1-2 drops of orange or rose essential oil was poured on a tissue and tied to the patient's shirt collar with a pin 10 cm away from the patient's head. The Visual Analog Scale (VAS) was used to assess the patient's pain intensity half an hour after each intervention. In the control group, patients only received the routine care

and then the pain intensity was measured immediately after patient's gaining full consciousness 4, 8, 12 hours after the operation. Since the aromatherapy is used as a supportive treatment method, so the conventional treatments of surgery ward were used to control the patient's pain.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2016112131002N1**

Registration date: **2017-05-03, 1396/02/13**

Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2017-05-03, 1396/02/13

Registrant information

Name

Yasaman Pourandish

Name of organization / entity

Department of Nursing Faculty of Nursing and Midwifery

Country

Iran (Islamic Republic of)

Phone

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Email address

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Recruitment status

Recruitment complete

Funding source

Vice Chancellor for Research and Technology University of Medical Sciences

Expected recruitment start date

2016-06-07, 1395/03/18
Expected recruitment end date
2017-06-08, 1396/03/18
Actual recruitment start date
empty
Actual recruitment end date
empty
Trial completion date
empty

Scientific title
Comparison of aromatherapy with essential oils of orange and red flowers on pain after abdominal surgery

Public title
Comparison of aromatherapy with essential oils of orange and red flowers on pain after abdominal surgery

Purpose
Supportive

Inclusion/Exclusion criteria
inclusion criteria including: 1- patients should be between 18-40 years old, 2- patients should not suffer from acute and chronic pains, 3- patients should not suffer from vision problems, 4- patients should not suffer from mental problems, 5- patients' sense of smell should be sound, 6- patients should not suffer from any respiratory problems or allergic rhinitis, and 7- patients should not have any experience of hospitalization or medical measures due to mental problems. Also, the exclusion criteria include 1- patients use the other herbal extracts simultaneously, 2- respiratory problems or allergic rhinitis emerge during intervention, and 3- the occurrence of a crisis or an unexpected event during intervention.

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: **120**

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

Ethics Committee of Arak University of Medical Sciences

Street address

Payambare Azam Complex, Sardasht

City

Arak

Postal code

Approval date

2016-05-18, 1395/02/29

Ethics committee reference number

IR.ARAKMU.REC.1395.66

Health conditions studied

1

Description of health condition studied

pain after surgery

ICD-10 code

R10.4

ICD-10 code description

Other and unspecified abdominal pain

Primary outcomes

1

Description

pain after abdominal surgery

Timepoint

After recovery from anesthesia.4.8 and 12 hours after surgery

Method of measurement

Pain measured by VAS

Secondary outcomes

empty

Intervention groups

1

Description

In the aromatherapy group with orange essential oil , during 12 hours after the surgery (immediately after that the patient regains full consciousness, 4, 8, and 12 hours after operation), 1-2 drops of orange essential oil was poured on a tissue and tied to the patient's shirt collar with a pin 10 cm away from the patient's head. The Visual Analog Scale (VAS) was used to assess the patient's pain intensity half an hour after each intervention. Since the aromatherapy is used as a supportive treatment method, so the conventional treatments of surgery ward were used to control the patient's pain.

Category

Treatment - Other

2**Description**

In the aromatherapy group with rose essential oil , during 12 hours after the surgery (immediately after that the patient regains full consciousness, 4, 8, and 12 hours after operation), 1-2 drops of rose essential oil was poured on a tissue and tied to the patient's shirt collar with a pin 10 cm away from the patient's head. The Visual Analog Scale (VAS) was used to assess the patient's pain intensity half an hour after each intervention. Since the aromatherapy is used as a supportive treatment method, so the conventional treatments of surgery ward were used to control the patient's pain.

Category

Other

3**Description**

In the control group, patients only received the routine care and then the pain intensity was measured immediately after patient's gaining full consciousness 4, 8, 12 hours after the operation.

Category

Treatment - Other

Recruitment centers**1****Recruitment center****Name of recruitment center**

Hospital Vali-asr

Full name of responsible person

moloud farmahini

Street address

Vali-asr Str, Vali-asr Hospital

City

Arak

Sponsors / Funding sources**1****Sponsor****Name of organization / entity**

Vice chancellor for Research, Arak University of Medical Sciences

Full name of responsible person

Dr. Rafiei

Street address

Payambare Azam Complex, Sardasht

City

Arak

Grant name**Grant code / Reference number****Is the source of funding the same sponsor****organization/entity?**

Yes

Title of funding source

Vice chancellor for Research, Arak 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**

Arak University of Medical Sciences

Full name of responsible person

moloud farmahini

Position

MSC NURSING

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Department of Nursing Faculty of Nursing and Midwifery

Full name of responsible person

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Position

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Full name of responsible person

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Position

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square/Arak

City

Arak

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