Clinical Trial Protocol
Iranian Registry of Clinical Trials

07 Nov 2026

Comparison of acupressure and eucalyptus inhalation on headache intensity in hemodialysis patients

Protocol summary

Study aim
Comparison of acupressure and eucalyptus inhalation on headache intensity in hemodialysis patients

Design
A randomized clinical trial with 33 samples with 3 groups; 2 test groups and a control group

Settings and conduct
For the first test group, acupressure is performed at HeGu, Yin Tang, Taiyang, and GB20 points. The duration of the intervention for each patient is 3 sessions in three visits consecutively. At the beginning of dialysis (first 20 minutes), each point for 1 minute, as a pressure for 8 seconds, followed by 2 seconds of rest. For the second test group, aromatherapy is performed with aromatic eucalyptus extract, 1 ml of which is placed on a 2*4 gas and inhaled for 5 minutes from a distance of 30 cm at the beginning of dialysis. Location: At Salam dialysis center in Tehran

Participants/Inclusion and exclusion criteria
Inclusion criteria: -Patients who complain of headache - Absence of swelling and numbness in HeGu, Taiyang, Yin Tang, GB21points - Not using acupressure simultaneously with this study - Absence of any wound, scratch, infection and deformity in HeGu, Taiyang, Yin Tang, GB21points. - Absence of olfactory disorder - Having informed consent to participate in the study - Not having advanced neuropathy -Having at least 1 pain score in the head area based on the pain measurement scale Exclusion criteria: -The patient's unwillingness to enter the study -having a history of using acupressure and eucalyptus inhalation or any aromatherapy to treat headaches in the past -frequent and chronic use of narcotic drugs -drug addiction

Intervention groups
The first test group of acupressure, The second test group of aromatherapy with eucalyptus inhalation,control group

Main outcome variables
Reduction of headache at the lowest cost in hemodialysis patients

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20240205060907N1**
Registration date: **2024-04-08, 1403/01/20**
Registration timing: **prospective**

Last update: **2024-04-08, 1403/01/20**
Update count: **0**

Registration date
2024-04-08, 1403/01/20

Registrant information

Name
Mohammad mahdi Narimani

Name of organization / entity

Country
Iran (Islamic Republic of)

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Email address
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Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2024-04-20, 1403/02/01

Expected recruitment end date
2024-05-21, 1403/03/01

Actual recruitment start date
empty

Actual recruitment end date
empty

Trial completion date

empty

Scientific title
Comparison of acupressure and eucalyptus inhalation on headache intensity in hemodialysis patients

Public title
Effect of acupressure and eucalyptus inhalation on headache in hemodialysis

Purpose
Supportive

Inclusion/Exclusion criteria

Inclusion criteria:
Patients who complain of headache according to their own statement and by entering in the file Absence of swelling and numbness in HeGu, Taiyang, Yin Tang, GB21 (Gall Bladder) points in test group one. Not using acupressure for any purpose in all three groups at the same time as this study Absence of any wound, scratch, infection and deformity in HeGu, Taiyang, Yin Tang, GB21 (Gall Bladder) points in test group one. Absence of olfactory disorder in the second test group Having informed consent to participate in the study No advanced neuropathy for all three groups Having a minimum score of 1 pain in the head area based on the pain measurement scale

Exclusion criteria:
Having a history of using Acupressure and Eucalyptus inhalation or any Aromatherapy to treat Headaches in the past Frequent and Chronic use of Narcotic Drugs Drug Addiction

Age
No age limit

Gender
Both

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **33**

Randomization (investigator's opinion)
Randomized

Randomization description
In this study, simple random allocation using random number table method is used. For this purpose, people are numbered and registered on paper from 1 to 33 in the order of their entry into the study. The direction of reading the numbers is chosen by the researcher from left to right. Then the researcher randomly places his hand on one of the numbers with his eyes closed and moves in a predetermined direction; The first 11 numbers to the acupressure group, 11 Next number to the Eucalyptus inhalation group, And the rest are in the control group.

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 Committees of Islamic Azad university-Isfahan(Khorasga) branch

Street address
Isfahan Islamic Azad University, Isfahan Khorasgan Branch, University Blvd, Arghwaniyeh, East Gey Street , Isfahan

City
Isfahan

Province
Isfehan

Postal code
81551-39998

Approval date
2024-03-04, 1402/12/14

Ethics committee reference number
IR.IAU.KHUISF.REC.1402.417

Health conditions studied

1

Description of health condition studied
Headache in hemodialysis patients

ICD-10 code
Z49

ICD-10 code description
Encounter for care involving renal dialysis

Primary outcomes

1

Description
Headache score in numerical rating scale

Timepoint
At the beginning of the study (before the start of the study), immediately after the intervention

Method of measurement
Numeric Rating Scale

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group: Acupressure is performed for the first

test group. In this study, acupressure applied pressure on the HeGu points between the first and second bones of the palm, Yin Tang between the eyebrows, Taiyang on the external corners of the eyes, and GB20 (Gallbladder20) on the vertebrae. The first is neck. The amount of pressure applied should be such that the person feels a little heat and pain in the pressured area. The duration of the intervention for each patient is 3 sessions in three consecutive visits. At the beginning of dialysis (the first 20 minutes), each point is pressed for 1 minute, in the form of pressure for 8 seconds, followed by 2 seconds of rest, a total of 4 minutes for each patient in each session.

Category
Other

2

Description
Intervention group: Aromatherapy is performed for the second test group. This group is treated with aromatic eucalyptus extract, 1 ml of which is placed on a 2/4 gas and inhaled for 5 minutes from a distance of 30 cm at the beginning of dialysis (first 20 minutes).

Category
Other

3

Description
Control group: No action is taken in the control group

Category
Other

Recruitment centers

1

Recruitment center

Name of recruitment center
Salam dialysis center

Full name of responsible person
Mohammad Mahdi, Sabokdast

Street address
Khavaran Central Hospital- corner of Hashemi Street- Kashi Street- Khavaran- Tehran

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity
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Full name of responsible person
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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
Islamic Azad University

Proportion provided by this source
100

Public or private sector
Public

Domestic or foreign origin
Domestic

Category of foreign source of funding
empty

Country of origin

Type of organization providing the funding
Academic

Person responsible for general inquiries

Contact

Name of organization / entity
Islamic Azad University

Full name of responsible person
Mohammad Mahdi, Narimani

Position
student

Latest degree
Master

Other areas of specialty/work
Nursery

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Sharing plan

Deidentified Individual Participant Data Set (IPD)
Undecided - It is not yet known if there will be a plan to make this available

Study Protocol
No - There is not a plan to make this available

Statistical Analysis Plan
No - There is not a plan to make this available

Informed Consent Form
No - There is not a plan to make this available

Clinical Study Report
No - There is not a plan to make this available

Analytic Code
No - There is not a plan to make this available

Data Dictionary
No - There is not a plan to make this available