Clinical Trial Protocol
Iranian Registry of Clinical Trials

08 Nov 2026

The effect of acupressure in several points on pain and physiological parameters of patients undergoing laparoscopic cholecystectomy surgery

Protocol summary

Study aim
Determining the effect of acupressure in several points on pain and physiological parameters of patients undergoing laparoscopic cholecystectomy surgery

Design
In this clinical trial, 92 patients who are candidates for laparoscopic cholecystectomy are randomly selected. Participants are randomly based on a Random Digital Table divided into intervention and control group with parallel and double-blinded groups.

Settings and conduct
The place of intervention is in the operating room of Al-Zahra hospitals in Isfahan, The research is double-blind, where the statistical analyst and the outcome evaluator do not know about the study groups.

Participants/Inclusion and exclusion criteria
inclusion criteria: candidates for laparoscopic cholecystectomy surgery. Exclusion criteria: Drug and alcohol addiction; patient's intention to leave the intervention at any time.

Intervention groups
In the intervention group, 30 minutes before the surgery, two acupressure steps will be performed on the patient with an interval of 20 minutes. In order to intervene, pressure points K1, H7, P6, LI4, LI11, SJ5 are pressed. Then, at the Post-Anesthesia Care Unit, and after ensuring the patient's consciousness, the intervention will be performed every 20 minutes up to 9 times on points K1, H7, P6, LI4, LI11, SJ5 respectively, and the participant in the control group will receive routine care. shoulder pain using a Visual Pain Scale and hemodynamic information including heart rate, systolic and diastolic blood pressure, breathing rate and heart rate is measured and recorded.

Main outcome variables
patients' pain; blood pressure; heart rate; respiratory rate

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20150715023216N14**
Registration date: **2023-01-22, 1401/11/02**
Registration timing: **prospective**

Last update: **2023-01-22, 1401/11/02**
Update count: **0**

Registration date
2023-01-22, 1401/11/02

Registrant information

Name
Said Amini Rarani

Name of organization / entity
Isfahan University of Medical Sciences

Country
Iran (Islamic Republic of)

Phone
+98 31 3522 6158

Email address
ghadami@mui.ac.ir

Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2023-02-04, 1401/11/15

Expected recruitment end date
2023-04-21, 1402/02/01

Actual recruitment start date
empty

Actual recruitment end date
empty

Trial completion date
empty

Scientific title
The effect of acupressure in several points on pain and physiological parameters of patients undergoing laparoscopic cholecystectomy surgery

Public title
The effect acupressure on pain and physiological parameters of patients laparoscopic cholecystectomy surgery

Purpose
Prevention

Inclusion/Exclusion criteria

Inclusion criteria:
patients undergoing laparoscopic cholecystectomy surgery Informed consent to participate in the study Healthy upper limbs and metatarsus

Exclusion criteria:
Suffering from vascular, inflammatory, diabetes and neuropsychological diseases Other recent surgeries or traumas Suffering from sensory-motor disorders Drug and alcohol addiction Performing acupressure or other complementary medicine techniques within the past two weeks

Age
From **18 years** old

Gender
Both

Phase
N/A

Groups that have been masked

- Outcome assessor
- Data analyser

Sample size
Target sample size: **92**

Randomization (investigator's opinion)
Randomized

Randomization description
In this research, random sampling will be done and randomly selected individuals who have been admitted to the study, so that among all the people who have the criteria for entering the study according to the Random Digits Table is selected based on the sample size specified. Using 2 cards with letters A, B and placing them in sealed envelopes, the patient randomly selects one of them and is assigned to one of the intervention or control groups.

Blinding (investigator's opinion)
Double blinded

Blinding description
The statistical analyst is unaware of which group each sample belongs to. In addition, a research associate is used to evaluate the outcome.

Placebo
Not used

Assignment
Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
Ethics committee of Medical University of Isfahan

Street address
Hezarjerib Street, Isfahan, Iran

City
Isfahan

Province
Isfehan

Postal code
81746/73461

Approval date
2023-01-17, 1401/10/27

Ethics committee reference number
IR.MUI.NUREMA.REC.1401.140

Health conditions studied

1

Description of health condition studied
Cholecystectomy

ICD-10 code
K91.86

ICD-10 code description
Retained cholelithiasis following cholecystectomy

Primary outcomes

1

Description
Pain score in visual analogue scale

Timepoint
Before surgery, when the patient is awake in the Post-Anesthesia Care Unit, 72 hours after the surgery

Method of measurement
Questionnaire visual analogue scale

Secondary outcomes

empty

Intervention groups

1

Description
In the intervention group, pressure points K1, H7, P6, LI4, LI11, SJ5 are subjected to acupressure 30 minutes before the start of surgery, with an interval of 20 minutes. Then, at the Post-Anesthesia Care Unit, and after ensuring the patient's consciousness, the intervention will be performed on points K1, H7, P6, LI4, LI11, SJ5, respectively, every 20 minutes.

Category
Prevention

2

Description
Control group: Control group: Individuals in the control group receive routine care.
Category
Prevention

Recruitment centers

1

Recruitment center
Name of recruitment center
Al-zahra hospital
Full name of responsible person
Saeid Amini Rarani
Street address
Hazar Jarib Street
City
Isfahan
Province
Isfehan
Postal code
8174675731
Phone
+98 31 3620 2020
Email
alzahra@mui.ac.ir

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Esfahan University of Medical Sciences
Full name of responsible person
Gholamraza Askari
Street address
Hezarjerib Street, Isfahan, Iran
City
Isfahan
Province
Isfehan
Postal code
8174673461
Phone
+98 31 3792 3060
Email
askari@mui.ac.ir
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Esfahan University of Medical Sciences
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
Esfahan University of Medical Sciences
Full name of responsible person
Saeid Amini Rarani
Position
Academic member
Latest degree
Master
Other areas of specialty/work
Nursery
Street address
NO 127, 22 Bahman alley, Jey st, Isfahan, Iran
City
Isfahan
Province
Isfehan
Postal code
8159314853
Phone
+98 31 3522 6158
Fax
+98 31 3522 6158
Email
aminior@nm.mui.ac.ir

Person responsible for scientific inquiries

Contact
Name of organization / entity
Esfahan University of Medical Sciences
Full name of responsible person
Saeid Amini Rarani
Position
Academic member
Latest degree
Master
Other areas of specialty/work
Nursery
Street address
NO 127, 22 Bahman alley, Jey st, Isfahan, Iran
City
Isfahan
Province
Isfehan
Postal code
8159314853
Phone
+98 31 3522 6158
Fax
+98 31 3522 6158

Email
aminior@nm.mui.ac.ir

Person responsible for updating data

Contact

Name of organization / entity
Esfahan University of Medical Sciences

Full name of responsible person
Saeid Amini Rarani

Position
Academic Member

Latest degree
Master

Other areas of specialty/work
Nursery

Street address
NO127, 22 Bahman alley, Jey st, Isfahan, Iran

City
Isfahan

Province
Isfehan

Postal code
8159314853

Phone
+98 31 3522 6158

Fax
+98 31 3522 6158

Email
aminior@nm.mui.ac.ir

Web page address

Sharing plan

Deidentified Individual Participant Data Set (IPD)
Yes - There is a plan to make this available

Study Protocol
Yes - There is a plan to make this available

Statistical Analysis Plan
Yes - There is a plan to make this available

Informed Consent Form
Yes - There is a plan to make this available

Clinical Study Report
Yes - There is a plan to make this available

Analytic Code
Undecided - It is not yet known if there will be a plan to make this available

Data Dictionary
Undecided - It is not yet known if there will be a plan to make this available

Title and more details about the data/document
Individual participant data collected for the primary outcome measures

When the data will become available and for how long
After publication for one year

To whom data/document is available
For all people who request for data

Under which criteria data/document could be used
It is allowed to perform any analysis on the data, but use of data for publication is not allowed.

From where data/document is obtainable
Corresponding author of article

What processes are involved for a request to access data/document
After requesting the data by email to corresponding author , the data will be sent after a maximum period of one week

Comments