Clinical Trial Protocol
Iranian Registry of Clinical Trials

08 Nov 2026

The comparative effect of pressure acupressure and low-level laser acupressure on P6 point to the control of postoperative nausea and vomiting after abdominal laparoscopic surgery.

Protocol summary

Study aim

1. To investigate the effect of pressure acupressure on the P6 point in reducing postoperative nausea and vomiting. 2. To investigate the effect of low-power laser acupressure on the P6 point in reducing postoperative nausea and vomiting.

Design

This study is a double-blind clinical trial with parallel and randomized groups. Based on the block permutation method, 118 patients are enrolled in the study.

Settings and conduct

20 minutes before induction of general anesthesia, all patients will receive pressure cuffs at the p6 points on both hands. Patients in group A will receive 15 minutes of laser acupressure using a diode laser with a wavelength of 808 nm and a power of 20 mw at the p6 point on both hands, and the pressure cuffs will not exert any effective pressure. Patients in group B will receive 15 minutes of pressure acupressure with a pressure cuff at the P6 point of both hands with enough pressure not to affect venous return. In order to blind the patients in group B, the described diode laser without active radiation is placed at the P6 point.

Participants/Inclusion and exclusion criteria

Inclusion criteria: 18 to 75 years old, no history of motion sickness/use of antiemetics Exclusion criteria: lack of consent to continue in the study

Intervention groups

There are two groups in this study. The intervention in group A is to investigate the effectiveness of laser acupressure on P6 point on postoperative nausea and vomiting. The intervention in group B is to investigate the effectiveness of pressure acupressure on P6 point on postoperative nausea and vomiting.

Main outcome variables

The severity of postoperative nausea and vomiting

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20250101064239N1**
Registration date: **2025-01-28, 1403/11/09**
Registration timing: **prospective**

Last update: **2025-01-28, 1403/11/09**
Update count: **0**

Registration date

2025-01-28, 1403/11/09

Registrant information

Name

Reza Namdari

Name of organization / entity

Country

Iran (Islamic Republic of)

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+98 86 3366 4986

Email address

reza.namdari78@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2025-03-21, 1404/01/01

Expected recruitment end date

2025-09-22, 1404/06/31

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title
The comparative effect of pressure acupressure and low-level laser acupressure on P6 point to the control of postoperative nausea and vomiting after abdominal laparoscopic surgery.

Public title
The comparative effect of pressure acupressure and low-level laser acupressure on P6 point to the control of postoperative nausea and vomiting after abdominal laparoscopic surgery.

Purpose
Prevention

Inclusion/Exclusion criteria
Inclusion criteria:
Patients between the ages of 18 and 75 years old Patients who are candidates for elective laparoscopic abdominal surgery Patients with American society of anesthesiologists (ASA) class 1 and 2 Patients with no history of motion sickness or chemotherapy Patients with informed consent Patients who have not taken antiemetics in the past 48 hours Patient alertness and cooperation in completing the Nausea and Vomiting Severity Questionnaire
Exclusion criteria:
Unwillingness to continue study participation

Age
From **18 years** old to **75 years** old

Gender
Both

Phase
N/A

Groups that have been masked

- Participant
- Investigator
- Outcome assessor
- Data analyser

Sample size
Target sample size: **118**

Randomization (investigator's opinion)
Randomized

Randomization description
This is done using the block permutation method. Based on this method, the organizer of the operating room, who is not the same person for data collection, before sending patients to the operating room, will categorize patients into two groups of A and B in the recursive following order "AABB, ABAB, ABBA, BBAA, BABA". For example: (AABB), the first and second patients in group A, the third and fourth patients in group B; (ABAB), the fifth and seventh patients in group A, the sixth and eighth patients in group B, and so on. The person responsible for data collection in the recovery room is not informed of the patient categories.

Blinding (investigator's opinion)
Double blinded

Blinding description
The operating room organizer will divide the patients into A and B groups just before entering the operating room. Pressure acupressure and laser acupressure are performed by the anesthesiologist in the operating room. Since the patients and the person responsible for data collection and analysis are unaware of the group categorization, this study is a double-blind clinical trial.

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
Third floor, No. 24, Golestan 12 street, Mostafa Khomeini Ave, Qods Blvd, Arak, Iran
City
Arak
Province
Markazi
Postal code
3818154975

Approval date
2024-12-31, 1403/10/11

Ethics committee reference number
IR.ARAKMU.REC.1403.287

Health conditions studied

1

Description of health condition studied
Postoperative nausea and vomiting

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description
Severity of nausea and vomiting

Timepoint
Measuring the severity of nausea and vomiting in hours 0-2-4-12-24 after surgery.

Method of measurement
Vomiting score

Secondary outcomes

1

Description

The amount of ondansetron required

Timepoint

0, 2, 4, 12, 24 hours after surgery

Method of measurement

Amount of intravenous ondansetron needed (milligram)

Intervention groups

1

Description

Intervention group: 20 minutes before induction of general anesthesia, laser acupressure is applied to the P6 point of both hands for 15 minutes using a diode laser with a wavelength of 808 nm and a power of 20 mw. In order to blind the patients, pressure cuffs without effective pressure are also applied to the same P6 point on both hands.

Category

Prevention

2

Description

Intervention group: 20 minutes before induction of general anesthesia, pressure acupressure is applied to the P6 point of both hands for 15 minutes using pressure cuffs at a pressure level that does not affect venous return. To blind the patients, a diode laser with a wavelength of 808 nm and a power of 20 mw without effective radiation is also applied to the same P6 point on both hands.

Category

Prevention

Recruitment centers

1

Recruitment center

Name of recruitment center

Arak Vali-ye-Asr Hospital

Full name of responsible person

Alireza Susan Abadi Farahani

Street address

Anesthetic group, Arak Vali-ye-Asr Hospital, Vali-ye-Asr square

City

Arak

Province

Markazi

Postal code

1

Phone

+98 86 3222 2003

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Dr.susanabadi@arakmu.ac.ir

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Arak University of Medical Sciences

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

Arak 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

Arak University of Medical Sciences

Full name of responsible person

Alireza Susan Abadi Farahani

Position

Associate Professor

Latest degree

Subspecialist

Other areas of specialty/work

Anesthesiology

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Person responsible for scientific inquiries

Contact

Name of organization / entity
Arak University of Medical Sciences

Full name of responsible person
Alireza Susan Abadi Farahani

Position
assistant professor

Latest degree
Subspecialist

Other areas of specialty/work
Anesthesiology

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Person responsible for updating data

Contact

Name of organization / entity
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Full name of responsible person
Reza Namdari

Position
medical student

Latest degree
A Level or less

Other areas of specialty/work
General Practitioner

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Email
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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
Yes - There is a plan to make this available

Data Dictionary
Yes - There is a plan to make this available

Title and more details about the data/document
All data can be shared after hiding identities

When the data will become available and for how long
Upon completion of the study and submission of the final report

To whom data/document is available
Researchers at academic institutions

Under which criteria data/document could be used
It can be used with a reference to the source used (forthcoming study).

From where data/document is obtainable
Researchers (Reza Namdari - Reza.namdari78@gmail.com) (Dr. Alireza Susan Abadi - Dr.susanabadi@arakmu.ac.ir)

What processes are involved for a request to access data/document
Once the request is submitted and approved by the researchers, the data can be obtained.

Comments