

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

22 Jun 2026

### Comparison of transcutaneous electrical nerve stimulation in acupuncture points with the incision site on post operative complications and physiological indicators after appendectomy

#### Protocol summary

##### Summary

**Objectives:** The purpose of this study is to compare the effect of transcutaneous electrical nerve stimulation (TENS) in acupuncture point (SP6, ST36, LI4) with the incision site on post operative complication such as pain, nausea and vomiting and physiological indications.

**Inclusion criteria:** Men and women between ages 15-45 under appendectomy operation in torbat jaam sajadie hospital after taking cognitive satisfaction are examined. **Exclusion criteria** are: history of skin disease, history of cardiac disease, addiction, diabetes, history of cognitive or mental disease, pregnancy and history of using acupuncture or TENS and by accessing any accidental during intervention such as bleeding or withdrawal of participation in intervention will be leaved.

**Setting and conduct:** Patients will divided accidentally to 4 groups after recovery: first group TENS in acupuncture points, second group TENS in place of incision, third group TENS in form placebo, the forth group researcher does not interfere. In all groups routine cures done during study. **Main outcome measures:** pain, nausea and vomiting, physiological indications, amount of taking lenitive before, immediately after intervention, 10 minutes after and at the end of 20 minutes are recorded and compared.

#### General information

##### Acronym

-

##### IRCT registration information

IRCT registration number: **IRCT2015061322682N2**

Registration date: **2015-11-07, 1394/08/16**

Registration timing: **registered\_while\_recruiting**

Last update:

Update count: **0**

##### Registration date

2015-11-07, 1394/08/16

##### Registrant information

###### Name

Mahsa Moazzen Ahmadi

###### Name of organization / entity

Gonabad University of Medical Sciences

###### Country

Iran (Islamic Republic of)

###### Phone

+98 51 5722 3514

###### Email address

moazzenm2@mums.ac.ir

##### Recruitment status

###### Recruitment complete

##### Funding source

Vice chancellor for research Gonabad University of Medical Sciences

##### Expected recruitment start date

2015-06-22, 1394/04/01

##### Expected recruitment end date

2015-12-22, 1394/10/01

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

Comparison of transcutaneous electrical nerve stimulation in acupuncture points with the incision site on post operative complications and physiological indicators after appendectomy

##### Public title

Comparison of transcutaneous electrical nerve

stimulation in acupuncture points with the incision site

### **Purpose**

Treatment

### **Inclusion/Exclusion criteria**

Inclusion criteria: men and women 14-45 years old; under appendectomy. Exclusion criteria; history of skin disease; history of cardiac disease; cognitive disease; diabetes disease; addiction; history of using TENS or acupuncture and pregnancy.

### **Age**

From **15 years** old to **45 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)**

Single blinded

### **Blinding description**

### **Placebo**

Not used

### **Assignment**

Parallel

### **Other design features**

Patients will divided accidentally to 4 groups (Table of random numbers)

## **Secondary Ids**

empty

## **Ethics committees**

### 1

#### **Ethics committee**

##### **Name of ethics committee**

Ethics committee of Gonabad University of Medical Sciences

##### **Street address**

Gonabad University of Medical Sciences, Gonabad, Khorasan Razavi, Iran

##### **City**

Gonabad

##### **Postal code**

9691793718

##### **Approval date**

2015-03-11, 1393/12/20

##### **Ethics committee reference number**

GMU.REC.1393.134

## **Health conditions studied**

### 1

#### **Description of health condition studied**

Appendicitis

#### **ICD-10 code**

k35-2,k35-

#### **ICD-10 code description**

Appendicitis (acute) with generalized (diffuse) peritonitis following rupture or perforation, Acute appendicitis with localized peritonitis with or without rupture or perforation  
Acute appendicitis with peritoneal absces,Acute appendicitis without

## **Primary outcomes**

### 1

#### **Description**

pain

#### **Timepoint**

before intervention, immediately after intervention, 10 minute after and at the end of 20 minute intervention

#### **Method of measurement**

Visual Analogue Scale of pain

### 2

#### **Description**

nausea

#### **Timepoint**

before intervention, immediately after intervention, 10 minute after and at the end of 20 minute intervention

#### **Method of measurement**

Visual Analogue Scale of nausea

## **Secondary outcomes**

### 1

#### **Description**

amount of pain relief

#### **Timepoint**

before intervention, immediately after intervention, 10 minute after and at the end of 20 minute intervention

#### **Method of measurement**

CC

### 2

#### **Description**

blood pressure

#### **Timepoint**

before intervention, immediately after intervention, 10 minute after and at the end of 20 minute intervention

#### **Method of measurement**

pressure indicator

### 3

#### **Description**

Heart rate

#### **Timepoint**

before intervention, immediately after intervention, 10

minute after and at the end of 20 minute intervention

**Method of measurement**

Probe monitor

**4**

**Description**

respiratory rate

**Timepoint**

before intervention, immediately after intervention, 10 minute after and at the end of 20 minute intervention

**Method of measurement**

see chest

**Intervention groups**

**1**

**Description**

15 minute after discharging of recovery in first group, in addition to routine cure in part, patients are cured under transcutaneous electrical nerve stimulation in acupuncture point (LI4, ST36, PC6) put in form of two sided with frequency 100 HZ and circuiting within tolerance for 20 minutes.

**Category**

Treatment - Other

**2**

**Description**

15 minutes after discharging of recovery in second group, in addition to routine cures in part, patients are cured under transcutaneous electrical nerve stimulation in places of incision (4 cm far from cutting place in form two sided) with frequency 100 HZ and circuitry within tolerance for 20 minute.

**Category**

Treatment - Other

**3**

**Description**

15 minute after discharging of recovery, in third group in addition to routine cures in part, patients are cured under transcutaneous electrical nerve stimulation in acupuncture points and incision site (instruments pads are putting in related points but TENS device does not tern) for 20 minute.

**Category**

Treatment - Other

**4**

**Description**

15 minute after discharging of recovery in fourth group, just routine cures are done and there is no intervention by researcher.

**Category**

Other

**Recruitment centers**

**1**

**Recruitment center**

**Name of recruitment center**

Sajadie Hospital of torbat jam

**Full name of responsible person**

Mahsa Moazzen Ahmadi

**Street address**

Sajadie Hospital, Fariman special road, Torbat Jam, Khorasan Razavi, Iran

**City**

Torbat jaam

**Sponsors / Funding sources**

**1**

**Sponsor**

**Name of organization / entity**

Vic Chancellor for research of Gonabad University of Medical Sciences

**Full name of responsible person**

Dr Ali Mohammadpour

**Street address**

Vice chancellor research of Gonabad University of Medical Sciences, Gonabad, Khorasan Razavi, Iran

**City**

Gonabad

**Grant name**

**Grant code / Reference number**

**Is the source of funding the same sponsor organization/entity?**

Yes

**Title of funding source**

Vic Chancellor for research of Gonabad 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**

Gonabad University of Medical Sciences

**Full name of responsible person**

Dr Mousa Sajjadi

**Position**

PHD of nursing

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**Person responsible for updating data**

**Contact**

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**Full name of responsible person**

Mahsa Moazzen Ahmadi

**Position**

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**Other areas of specialty/work**

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**Email**

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**Web page address**

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**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*