

Clinical Trial Protocol

Iranian Registry of Clinical Trials

07 Jun 2026

The effect of acupressure on level of insulin and fasting blood sugar in type 2 diabetic patients referred to the diabetes clinic in Rafsanjan 2016

Protocol summary

Summary

Introduction: Diabetes mellitus type II is a global health problem that it is expected, in 2030, the number of afflicted people will reach 4.4 percent of world population. If the symptoms are not controlled properly, they will make problems and risks for the individual, family, society and health system. Many ways are available to control the symptoms of Diabetes mellitus type II including: changing the life style through doing exercise, taking proper diets and taking edible drugs or insulin injections. Following each of these ways has its own difficulties. Acupressure is one of the non-pharmacological methods of treatment that its use is safe, it has no side effects and does not require special equipment and costs. While reviewing the existing texts, few studies on the application of acupressure were found. Most of existing reports has emphasized the effect of acupressure on the level of blood sugar. Therefore, this study has been designed with the aim of determining the effect of acupressure on the levels of insulin and blood sugar in the patients with type II diabetes who attended the Diabetes Clinic of Rafsanjan, Iran in 2016. Methodology: This study is a Randomized clinical trial type that 70 of all the patients by considering the ethics and based on inclusion and exclusion criteria are chosen intellectually, and they are placed by categorical random way in two groups of intervention and control. At the beginning, the blood sample of two groups will be exsanguinated in order to determine their insulin and fasting blood sugar level. In the group of control, no intervention except the normal clinical cares (maintaining a diabetic diet, one-hour regular walking, going to bed every night before 10 o'clock, keeping calm and avoiding stress) and medical orders prescribed by the doctor will not be done. The intervention group, in addition to the aforementioned items, will receive acupressure treatment in the assumed points for study. The used points for study are LIV3, ST36, SP6, KD3, and the timing of each pressure would

be 5minutes for 20 minutes a day. This action will be done for three weeks and the time of action is determined to be 10 o'clock in the morning of every day. Immediately, after finishing this course, insulin and fasting blood-sugar level of the two groups of intervention and control will be measured. After collecting the data, the data will be processed and analyzed by Spss software, version 18.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2016122131459N1**

Registration date: **2017-02-22, 1395/12/04**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2017-02-22, 1395/12/04

Registrant information

Name

Asieh Zarvasi

Name of organization / entity

Rafsanjan University of Medical Sciences and Health Services, Rafsanjan

Country

Iran (Islamic Republic of)

Phone

+98 344321492

Email address

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Recruitment status

Recruitment complete

Funding source

Rafsanjan University of Medical Sciences and Health Services, Rafsanjan

Expected recruitment start date
2016-05-21, 1395/03/01

Expected recruitment end date
2017-01-20, 1395/11/01

Actual recruitment start date
empty

Actual recruitment end date
empty

Trial completion date
empty

Scientific title
The effect of acupressure on level of insulin and fasting blood sugar in type 2 diabetic patients referred to the diabetes clinic in Rafsanjan 2016

Public title
The effect of acupressure on level of insulin and fasting blood sugar in type 2 diabetic patients referred to the diabetes clinic in Rafsanjan 2016

Purpose
Supportive

Inclusion/Exclusion criteria
Inclusion criteria: 1. Registering type II diabetes clinical medical records 2. Lack of activity and disability for interventional procedures 3. Absence of abnormality in pressure points 4. Not taking insulin injections 5. No untreated hypertension 6. Normal BMI and overweight body mass index (9 / 29-5 / 18). 7. Signing informed consent to participate in the study. 8. Lack of cognitive disorders to learn and follow the interventional procedure during specified period of time. 9. No pregnancy. 10. Not taking any drugs and herbal medicines that affect blood sugar levels. 11. Not suffering from advanced neuropathy. Exclusion criteria: 1. Infectious diseases 2. Receiving drugs that affect blood sugar levels (blood glucose lowering drugs: acetaminophen, anabolic steroid, Clofibrate, Dyzvpyramyd, gemfibrozil, insulin, inhibitors of MAO, pentamidine, propranolol. Drugs increasing blood sugar: thyroxine, Diazoxide, estrogens, glucagon, isoniazid, salicylates, triamterene, benzodiazepines, beta blockers, epinephrine, furosemide, glucocorticoids, glucose, lithium, birth control pills, technical-Tween, thiazide diuretics.) 3. Disorders of other endocrine glands. 4. Hang antidiabetic drugs. 5. Inability to do interventional procedures and forgetting even one turn during the specified period of acupressure. 6. The emergence of topical problems in the localized pressure points of research. 7. Withdrawal from further participation in the intervention. 8. Sharp and sudden change in the general situation of patients that is associated with changes in blood sugar levels. 9. Failure to comply with the terms of the research study (receiving regular medication regimen, maintaining a diabetic diet, one-hour regular walking, going to bed every night before 10 o'clock, keeping calm and avoiding stress).

Age
No age limit

Gender
Both

Phase

N/A

Groups that have been masked
No information

Sample size
Target sample size: 70

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

Rafsanjan University of Medical Sciences and Health Services

Street address

Rafsanjan University of Medical Sciences and Health Services, Imam ali boulevard

City

Rafsanjan

Postal code

Approval date

2016-07-20, 1395/04/30

Ethics committee reference number

IR.RUMS.REC.1395.60

Health conditions studied

1

Description of health condition studied

Type 2 diabetes

ICD-10 code

E10-14

ICD-10 code description

Diabetes mellitus

Primary outcomes

1

Description

Fasting blood sugar

Timepoint

Pre intervention and 21 days after that

Method of measurement

Pars azmoon lab kit

2

Description

Insulin level in blood

Timepoint

Pre intervention and 21 days after that

Method of measurement

Insulin kit

Secondary outcomes

empty

Intervention groups

1

Description

Acupressure and maintaining a diabetic diet, one-hour regular walking, going to bed every night before 10 o'clock, keeping calm and avoiding stress

Category

Other

2

Description

Maintaining a diabetic diet, one-hour regular walking, going to bed every night before 10 o'clock, keeping calm and avoiding stress

Category

Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Diabetes clinic in Ali Ebne Abitaleb hospital of Rafsanjan city

Full name of responsible person

Dr. Balaie

Street address

Ali Ebne Abitaleb hospital

City

Rafsanjan

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Rafsanjan University of Medical Sciences and Health Services

Full name of responsible person

Tayebe Negahban Banaie

Street address

Rafsanjan University of Medical Sciences and Health Services, Imam Ali blvd.

City

Rafsanjan

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Rafsanjan University of Medical Sciences and Health Services

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

Rafsanjan University of Medical Sciences and Health Services

Full name of responsible person

Asieh Zarvasi

Position

Medical-surgical Nursing graduate student

Other areas of specialty/work

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Person responsible for updating data

Contact

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Full name of responsible person
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Position
Medical-surgical Nursing graduate student
Other areas of specialty/work
Street address
Rafsanjan University of Medical Sciences and Health Services, Imam Ali blvd
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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