

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

13 Jun 2026

### The evaluation of the ginger extract gel(ZingiberOfficinale) phonophoresis and pulsed ultrasound on the knee pain and function in patients with moderate degree of knee osteoarthritis

#### Protocol summary

##### Summary

Objectives: Osteoarthritis is a common joint inflammatory disease with symptoms like joint stiffness and decreased performance. Knee osteoarthritis prevalence is estimated as 34.19% in Iran. Different physical therapy methods like ultrasound therapy and phonophoresis are used to reduce pain and inflammation. Ginger had been proved to reduce pain and improve performance in patients with knee osteoarthritis in the previous studies. No previous study has evaluated the effects of ginger phonophoresis;so, the aim of this study is to evaluate ginger effects. Design: Randomised Controlled Trial Setting and conduct: Intervention and control groups receive 10 sessions of routine physical therapy but control group receive just ultrasound. Intervention group receive ginger phonophoresis. Participants:Patients diagnosed as knee osteoarthritis with specialist and according to Kelegren-Lawrence method and age beyond 50 years old were assigned into interventional and control groups. Intervention: Intervention group: Hot pack- TENS- Exercise- Ginger phonophoresis Control group: Hot pack- TENS- Exercise- US Main outcome measures variables: Pain (VAS)- KOOS questionnaire- TUGT

#### General information

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT2016061428447N1**  
Registration date: **2016-07-31, 1395/05/10**  
Registration timing: **registered\_while\_recruiting**

Last update:

Update count: **0**

##### Registration date

2016-07-31, 1395/05/10

#### Registrant information

##### Name

Amin Kordi Yoosefinejad

##### Name of organization / entity

Shiraz University of Medical Sciences

##### Country

Iran (Islamic Republic of)

##### Phone

+98 71 3626 1081

##### Email address

yoosefinejad@sums.ac.ir

#### Recruitment status

##### Recruitment complete

#### Funding source

Shiraz University of medical sciences

#### Expected recruitment start date

2016-05-21, 1395/03/01

#### Expected recruitment end date

2016-08-22, 1395/06/01

#### Actual recruitment start date

empty

#### Actual recruitment end date

empty

#### Trial completion date

empty

#### Scientific title

The evaluation of the ginger extract gel(ZingiberOfficinale) phonophoresis and pulsed ultrasound on the knee pain and function in patients with moderate degree of knee osteoarthritis

#### Public title

the effects of a physical therapy method on knee osteoarthritis

#### Purpose

Treatment

#### Inclusion/Exclusion criteria

inclusion criteria: Knee osteoarthritis confirmed with a specialist according to Kelegren-Lawrens method; age beyond 50 years old -Exclusion criteria: Arthroscopy during the last year; Fever over 38 degrees centigrade; Hyaluronate injection during previous 6 months; anticoagulants like aspirin; coagulation and blood diseases like hemophilia; deformities; Lower limb surgery during previous 6 months; systematic disorders as diabetes mellitus; inflammatory arthropaties; soft tissue rheumatism; Inflammatory conditions; Skin sensation disorders; Skin ulcers.

**Age**

No age limit

**Gender**

Both

**Phase**

2-3

**Groups that have been masked**

*No information*

**Sample size**

Target sample size: **40**

**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**

Ethics committee of Shiraz University of medical sciences

**Street address**

Shiraz, Nemazi Street, Central building of Shiraz university of medical sciences

**City**

Shiraz

**Postal code**

14336 - 71348

**Approval date**

2016-06-13, 1395/03/24

**Ethics committee reference number**

IR.SUMS.REC.1395.53

**Health conditions studied****1****Description of health condition studied**

Knee osteoarthritis

**ICD-10 code**

M15

**ICD-10 code description**

Primary generalized (osteo)arthrosis

**Primary outcomes****1****Description**

knee performance

**Timepoint**

before, after the intervention

**Method of measurement**

Persian version of KOOS questionnaire

**Secondary outcomes****1****Description**

pain

**Timepoint**

before and after the intervention

**Method of measurement**

VAS scale

**Intervention groups****1****Description**

intervention group: hot pack for 20 minutes; TENS for 20 minutes with 100 Hz of frequency and 100 ms duration; Phonophoresis of Zingiber Officinale with 4% concentration, 5 days per week, 10 days and 7 minutes of application

**Category**

Treatment - Other

**2****Description**

Control group: Hot pack for 20 minutes; TENS for 20 minutes with 100 Hz frequency and 100 ms duration; ultrasound in continuous mode for 7 minutes, 5 days a week for 10 days.

**Category**

Treatment - Drugs

**Recruitment centers****1****Recruitment center****Name of recruitment center**

school of rehabilitation of Shiraz university of medical sciences

**Full name of responsible person**

Amin Kordi Yoosefinejad

**Street address**Chamran Blvd, Sheikh Abivardi 1 street,  
Rehabilitation Faculty, Clinic of Rehabilitation Faculty**City**

Shiraz

+98 71 3626 1081

**Fax****Email**

yoosefinejad@sums.ac.ir

**Web page address****Sponsors / Funding sources****1****Sponsor****Name of organization / entity**Shiraz University of Medical Sciences, Vice chancellor  
of Research**Full name of responsible person**

Amin kordi Yoodefinejad

**Street address**Vice chancellor for research, 7th floor, Central  
building of Shiraz University of Medical Sciences,  
Nemazi Street**City**

Shiraz

**Grant name****Grant code / Reference number****Is the source of funding the same sponsor  
organization/entity?**

Yes

**Title of funding source**Shiraz University of Medical Sciences, Vice chancellor of  
Research**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**School of rehabilitation of Shiraz university of medical  
sciences**Full name of responsible person**

Amin Kordi Yoosefinejad

**Position**

PhD of physical therapy

**Other areas of specialty/work****Street address**School or Rehabilitation, Sheikh Abivardi 1 street,  
Chamran Blvd**City**

Shiraz

**Postal code****Phone****Person responsible for scientific  
inquiries****Contact****Name of organization / entity**School of rehabilitation of Shiraz university of medical  
sciences**Full name of responsible person**

Amin Kordi Yoosefinejad

**Position**

PhD of physical therapy

**Other areas of specialty/work****Street address**School of rehabilitation, Sheikh Abivardi 1 street,  
Chamran Blvd**City**

Shiraz

**Postal code****Phone**

+98 71 3626 1081

**Fax****Email**

yoosefinejad@sums.ac.ir

**Web page address****Person responsible for updating data****Contact****Name of organization / entity**School of rehabilitation of Shiraz university of medical  
sciences**Full name of responsible person**

Amin Kordi Yoosefinejad

**Position**

PhD of physical therapy

**Other areas of specialty/work****Street address**School of rehabilitation, Sheikh Abivardi 1 street,  
Chamran Blvd**City**

Shiraz

**Postal code****Phone**

+98 71 3626 1081

**Fax****Email**

yoosefinejad@sums.ac.ir

**Web page address****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*