

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

10 Jun 2026

### Assessment of work related trigger points in neck and shoulder muscle in office workers and comparison of dry needling and ischemic compression in treatment of trigger points

#### Protocol summary

##### Summary

Objectives: Assessment and treatment of neck myofascial trigger points in female office workers that they work with computers at least for 3 hours in day. Design: Office workers of Tehran University of Medical Sciences participate in this study. 90 patients in 3 groups (ischemic compression, dry needling and control group) participate in one blinded phase 2, Randomized Clinical Trial. Setting and conduct: After referral of the subjects to In patient Rehabilitation Clinic, assessment will be done. If the subjects have trigger points, they will be assigned in 3 groups by randomly. Participants is the staff of Tehran University of Medical Sciences Inclusion & exclusion Criteria: People who experience neck pain at least once in the last week and at least 20 days during the past year; grade 2 in NRS at least ; and People with a history of trauma or surgery in the neck and shoulders are excluded. Intervention: The subjects in 3 groups get ischemic compression and exercise therapy, or dry needling and exercise therapy or only in control group receive exercise therapy Main Outcome Measures: Pain, Range of Motion and muscle strength.

#### General information

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT201612071719N4**  
Registration date: **2017-05-05, 1396/02/15**  
Registration timing: **registered\_while\_recruiting**

Last update:

Update count: **0**

##### Registration date

2017-05-05, 1396/02/15

##### Registrant information

##### Name

khadije Otadi

##### Name of organization / entity

Tehran University of Medical Sciences

##### Country

Iran (Islamic Republic of)

##### Phone

+98 21 7753 6134

##### Email address

k\_otadi@razi.tums.ac.ir

##### Recruitment status

**Recruitment complete**

##### Funding source

Vice chancellor for research Tehran University of Medical Science

##### Expected recruitment start date

2017-01-29, 1395/11/10

##### Expected recruitment end date

2018-01-30, 1396/11/10

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

Assessment of work related trigger points in neck and shoulder muscle in office workers and comparison of dry needling and ischemic compression in treatment of trigger points

##### Public title

The effect of physiotherapy on neck pain

##### Purpose

Treatment

##### Inclusion/Exclusion criteria

Inclusion criteria: People who experience neck pain at

least once in the last week ; People Have neck pain at least 20 days during the past year; Have grade 2 in NRS at least ; Exclusion criteria:People with a history of trauma or surgery in the neck and shoulders are excluded.

#### **Age**

From **18 years** old to **50 years** old

#### **Gender**

Female

#### **Phase**

2

#### **Groups that have been masked**

*No information*

#### **Sample size**

Target sample size: **90**

#### **Randomization (investigator's opinion)**

Randomized

#### **Randomization description**

#### **Blinding (investigator's opinion)**

Single 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 Tehran University of Medical Sciences

###### **Street address**

Tehran University of Medical Science. Enghlab Square, Tehran

###### **City**

Tehran

###### **Postal code**

###### **Approval date**

2016-11-20, 1395/08/30

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

IR.TUMS.FNM.REC.1395.797

### **Health conditions studied**

#### **1**

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

Neck pain

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

M60, M61,

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

Muscle disorders

### **Primary outcomes**

#### **1**

##### **Description**

Pain

##### **Timepoint**

Before and after treatment

##### **Method of measurement**

Visual analogue scale

#### **2**

##### **Description**

Muscle strength

##### **Timepoint**

Before and after treatment

##### **Method of measurement**

By manual dynamometer

#### **3**

##### **Description**

Range of motion

##### **Timepoint**

Before and after treatment

##### **Method of measurement**

By goniometer

#### **4**

##### **Description**

Neck disability index

##### **Timepoint**

Before and after treatment

##### **Method of measurement**

NDI questionnaire

### **Secondary outcomes**

empty

### **Intervention groups**

#### **1**

##### **Description**

"Intervention group : Dry Needling & Exercise Therapy"

##### **Category**

Rehabilitation

#### **2**

##### **Description**

" Control group: Exercise Therapy"

##### **Category**

Rehabilitation

#### **3**

##### **Description**

" Intervention group: Ischemic Compression & Exercise therapy"

**Category**

Rehabilitation

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

Tehran University of Medical Science, Faculty of Rehabilitation, Physiotherapy Clinic

**Full name of responsible person**

Khadijeh Otadi

**Street address**

Pich.e.Shemiran, Enghelab, Tehran

**City**

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**Sponsors / Funding sources****1****Sponsor****Name of organization / entity**

Vice chancellor for research, Tehran University of Medical Science

**Full name of responsible person**

Ms. Norooz zadeh

**Street address**

The Corner of Qoudes- Keshavarz Blu, Enghelab square

**City**

Tehran

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

Yes

**Title of funding source**

Vice chancellor for research, Tehran University of Medical Science

**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**

Tehran university of Medical Science

**Full name of responsible person**

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**Position**

Assistant professor /Ph.D

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Tehran university of Medical Science

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**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*