# Clinical Trial Protocol
# Iranian Registry of Clinical Trials

16 Sep 2026

## The effectiveness of manual and TECAR therapy simultaneously versus manual therapy alone on pain, range of motion and disability in female with non-specific chronic neck pain

## Protocol summary

**Study aim**
Determining and comparing the effect of manual therapy and concurrent therapy in comparison with manual therapy alone on pain, range of motion and disability in women with chronic non-specific neck pain

**Design**
A clinical trial with two treatment groups, single blind, randomized on a number of patients identified by initial sampling and G Power software. Random blocking method and random allocation software are used for randomization.

**Settings and conduct**
With accessible sampling method, women with NSCNP are entered into the study and randomly divided into two groups. One group receives 15 minutes of manual and simultaneous therapy simultaneously and the other group receives only manual therapy. All sessions of the present study, including initial clinical evaluations and treatment sessions are performed in physiotherapy clinics of Iran University of Medical Sciences.The evaluator in this experiment is blind.

**Participants/Inclusion and exclusion criteria**
Literate women with chronic nonspecific neck pain with or without referral to the upper extremity for no known cause lasting more than 3 months.

**Intervention groups**
There are two types of intervention: manual therapy that is performe for both groups and TECAR therapy that is apply simultaneously with manual therapy in only one group.

**Main outcome variables**
Pain; range of motion of neck; neck disability index; pain scale and neck disability

## General information

**Reason for update**

**Acronym**
TECAR

**IRCT registration information**
IRCT registration number: **IRCT20201112049366N1**
Registration date: **2020-12-28, 1399/10/08**
Registration timing: **prospective**

Last update: **2020-12-28, 1399/10/08**
Update count: **0**

**Registration date**
2020-12-28, 1399/10/08

**Registrant information**

**Name**
Atena Bameri

**Name of organization / entity**

**Country**
Iran (Islamic Republic of)

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**Recruitment status**
**Recruitment complete**

**Funding source**

**Expected recruitment start date**
2021-01-20, 1399/11/01

**Expected recruitment end date**
2021-04-18, 1400/01/29

**Actual recruitment start date**
empty

**Actual recruitment end date**
empty

**Trial completion date**
empty

**Scientific title**

The effectiveness of manual and TECAR therapy simultaneously versus manual therapy alone on pain, range of motion and disability in female with non-specific chronic neck pain

**Public title**
the effectiveness of manual and TECAR therapy in neck pain
**Purpose**
Treatment
**Inclusion/Exclusion criteria**
**Inclusion criteria:**
Wemen with chronic nonspecific neck pain with or without referral to the upper extremity for no known reason that the duration of pain is more than 3 months Age 20- 35 years old Ability to read and write in Persian
**Exclusion criteria:**
Existence of neck pain symptoms of known origin such as disc herniation, spinal canal stenosis, instability in the spine Known history of migraine Existence of peripheral nerve involvement in the neck and shoulders History of spinal fractures History of spinal tumor Presence of musculoskeletal disorders of the shoulder such as tendinitis, bursitis History of inflammatory rheumatoid diseases Pregnancy Receive any type of physiotherapy treatment in the past month People's unwillingness to participate in the study
**Age**
From **20 years** old to **35 years** old
**Gender**
Female

**Phase**
N/A
**Groups that have been masked**

- Outcome assessor
- Data analyser

**Sample size**
Target sample size: **30**
**Randomization (investigator's opinion)**
Randomized
**Randomization description**
Patients are divided into experimental and control groups based on random blocking method (block size of 4 and allocation ratio of 1: 1). Thus, at the end of all four sampling, the number of samples in both groups is equal. The arrangement of blocks is done based on Random allocation software by a statistician.
**Blinding (investigator's opinion)**
Single blinded
**Blinding description**
In this study, the evaluator is blind in all four stages of evaluation: before treatment, end of the first week, end of the second week and one month after treatment.
**Placebo**
Not used
**Assignment**
Parallel
**Other design features**
In this study, individuals are divided into two treatment groups, one group receiving TECAR therapy and manual therapy simultaneously and the other group receiving only manual therapy.

## Secondary Ids

empty

## Ethics committees

### 1

**Ethics committee**
**Name of ethics committee**
Ethics committee of Iran University of Medical Sciences
**Street address**
Faculty of Rehabilitation, Nezam Alley, Madadkaran Ave., Shahnazari Ave., Madar Square, Mirdamad Blvd.
**City**
Tehran
**Province**
Tehran
**Postal code**
1545913487
**Approval date**
2020-11-07, 1399/08/17
**Ethics committee reference number**
IR.IUMS.REC.1399.751

## Health conditions studied

### 1

**Description of health condition studied**
nonspecific chronic neck pain
**ICD-10 code**
**ICD-10 code description**

## Primary outcomes

### 1

**Description**
Pain
**Timepoint**
Before the intervention, the end of the first week and the end of the second week and one month after treatment
**Method of measurement**
Visual Analogue Scale

### 2

**Description**
Neck disability index
**Timepoint**
Before the intervention, the end of the first week and the end of the second week and one month after treatment
**Method of measurement**
Neck Disability Index Questionnaire

### 3

**Description**

Neck pain and disability scale

**Timepoint**

Before the intervention, the end of the first week and the end of the second week and one month after treatment

**Method of measurement**

Neck pain and disability scale questionnaire

## Secondary outcomes

empty

## Intervention groups

### 1

**Description**

Intervention group: Use TECAR therapy and manual therapy simultaneously for 15 minutes and 10 sessions over two weeks. Manual treatment is performed simultaneously with the use of a special applicator device, simultaneously with TECAR therapy.

**Category**

Treatment - Devices

### 2

**Description**

Intervention group: TECAR therapy with TECAR therapy device for 15 minutes and 10 sessions over two weeks

**Category**

Treatment - Devices

## Recruitment centers

### 1

**Recruitment center**

**Name of recruitment center**

Physiotherapy Clinic of Iran University of Medical Sciences

**Full name of responsible person**

Atena Bameri

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## Sponsors / Funding sources

### 1

**Sponsor**

**Name of organization / entity**

Iran University of Medical Sciences

**Full name of responsible person**

Dr Abas Motevalian

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Fifth floor of the headquarters, Iran University of Medical Sciences, next to Milad Tower, Hemmat Highway

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research-m@iums.ac.ir

**Grant name**

**Grant code / Reference number**

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

Yes

**Title of funding source**

Iran 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**

Iran University of Medical Sciences

**Full name of responsible person**

Atena Bameri

**Position**

student

**Latest degree**

Bachelor

**Other areas of specialty/work**

Physiotherapy

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## Person responsible for updating data

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**Position**
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## Sharing plan

**Deidentified Individual Participant Data Set (IPD)**
Undecided - It is not yet known if there will be a plan to make this available

**Study Protocol**
Undecided - It is not yet known if there will be a plan to make this available

**Statistical Analysis Plan**
Undecided - It is not yet known if there will be a plan to make this available

**Informed Consent Form**
Undecided - It is not yet known if there will be a plan to make this available

**Clinical Study Report**
Undecided - It is not yet known if there will be a plan to make this available

**Analytic Code**
Undecided - It is not yet known if there will be a plan to make this available

**Data Dictionary**
Not applicable