# Clinical Trial Protocol
# Iranian Registry of Clinical Trials

22 Nov 2026

## Comparison of the effect of joint mobilization and exercise on pain, range of motion and cervical motor control in patients with chronic cervicogenic headache

## Protocol summary

**Study aim**
Comparison of the effect of joint mobilization and exercise on pain, range of motion and cervical motor control in patients with chronic cervicogenic headache

**Design**
The study is an experimental, interventional, and clinical trial type.

**Settings and conduct**
This study was conducted in Yazd in volunteer patients with cervicogenic headache.

**Participants/Inclusion and exclusion criteria**
Entry Criteria: 1) Ladies and gentlemen aged 18-45 years 2) Having at least 3 months of headache history 3) Having at least one headache per week 4) At least 5 criteria of CHISG 5) Positive test of upper three cervical intervertebral movements 6) Not receiveing physiotherapy and / or chiropractic treatment at least a year ago 7) No signs of degeneration, radiculopathy, progressive rheumatologic and neurological diseases, long history of corticosteroid therapy, history of accident and wiplash injury, malignancy, pregnancy and depression

**Intervention groups**
The study consists of two groups of exercises therapy and a group of upper cervical mobilization.

**Main outcome variables**
Headache parameters Active cervical range of motion upper cervical rotation range of motion Craniocervical motor control Headache disability index questionnaire score

## General information

**Reason for update**

**Acronym**

**IRCT registration information**
IRCT registration number: **IRCT20180714040466N1**
Registration date: **2018-12-24, 1397/10/03**
Registration timing: **retrospective**

Last update: **2018-12-24, 1397/10/03**
Update count: **0**

**Registration date**
2018-12-24, 1397/10/03

**Registrant information**

**Name**
Fateme Ghiasi

**Name of organization / entity**

**Country**
Iran (Islamic Republic of)

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

**Funding source**

**Expected recruitment start date**
2018-08-05, 1397/05/14

**Expected recruitment end date**
2018-10-22, 1397/07/30

**Actual recruitment start date**
empty

**Actual recruitment end date**
empty

**Trial completion date**
empty

**Scientific title**
Comparison of the effect of joint mobilization and exercise on pain, range of motion and cervical motor control in patients with chronic cervicogenic headache

**Public title**

Effect of physiotherapy in treatment of cervicogenic headache

**Purpose**
Treatment

**Inclusion/Exclusion criteria**

**Inclusion criteria:**
History of headache at least 3 months Headache frequency at least one per week At least 5 criteria of CHISG Positive test of upper three cervical intervertebral movements Not receiving of physiotherapy/ chiropractic treatment at least one year ago

**Exclusion criteria:**
Test Positive test for cervical Vertebral Artery and ligaments health

**Age**
From **18 years** old to **45 years** old

**Gender**
Both

**Phase**
N/A

**Groups that have been masked**

- Participant

**Sample size**
Target sample size: **30**

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

**Randomization description**
Individuals are divided into two groups by the method of two-way random blocks.

**Blinding (investigator's opinion)**
Single blinded

**Blinding description**
Patients are considered blind regardless of the difference in treatment methods of the groups.

**Placebo**
Not used

**Assignment**
Parallel

**Other design features**

## Secondary Ids

empty

## Ethics committees

### 1

**Ethics committee**

**Name of ethics committee**
Ethics Committee of Zahedan University of Medical Sciences

**Street address**
Dr. Hesabi street, Zahedan University of Medical Sciences

**City**
Zahedan

**Province**
Sistan-va-Balouchestan

**Postal code**
9816743463

**Approval date**
2018-08-04, 1397/05/13

**Ethics committee reference number**
IR.ZAUMS.REC.1397.162

## Health conditions studied

### 1

**Description of health condition studied**
cervicogenic headache

**ICD-10 code**
G44.8

**ICD-10 code description**
Other specified headache syndromes

## Primary outcomes

### 1

**Description**
pain intensity

**Timepoint**
The beginning of treatment, session 6 and 12, one month after the end of treatment

**Method of measurement**
Average pain based on VAS in last week

### 2

**Description**
pain ferquency

**Timepoint**
The beginning of treatment, session 6 and 12, one month after the end of treatment

**Method of measurement**
The number of days a person has had a headache last week.

### 3

**Description**
pain duration

**Timepoint**
The beginning of treatment, session 6 and 12, one month after the end of treatment

**Method of measurement**
average hours pain lasted in past week

### 4

**Description**
active cervical ROM

**Timepoint**
The beginning of treatment, session 6 and 12, one month after the end of treatment

**Method of measurement**
Active motion of the neck in the flexion, extension, lateral flexion and right and left rotation, measured by the motion analysis device.

**5**

**Description**
upper cervical rotation ROM
**Timepoint**
The beginning of treatment, session 6 and 12, one month after the end of treatment
**Method of measurement**
flexion rotation test angle, which is measured by the motion analyzer.

**6**

**Description**
craniocervical motor control
**Timepoint**
The beginning of treatment, session 6 and 12, one month after the end of treatment
**Method of measurement**
The numerical value of the pressure biofeedback in the craniocervical flexion test

**7**

**Description**
headache disability index
**Timepoint**
The beginning of treatment, session 6 and 12, one month after the end of treatment
**Method of measurement**
questionnaire score

## Secondary outcomes

empty

## Intervention groups

**1**

**Description**
Intervention group: exercise therapy,The patient will perform exercises for 12 sessions to strengthen the muscles of the area.
**Category**
Rehabilitation

**2**

**Description**
Intervention group: mobilization, The Maitland mobilization techniques will be performed on the patient for 12 sessions.
**Category**
Rehabilitation

## Recruitment centers

**1**

**Recruitment center**
**Name of recruitment center**
Shariati Physiotherapy
**Full name of responsible person**
Mahsa Zakerzadeh
**Street address**
Mohaghegh Damad
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## Sponsors / Funding sources

**1**

**Sponsor**
**Name of organization / entity**
Zahedan University of Medical Sciences
**Full name of responsible person**
Dr. Bakhshani
**Street address**
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**Grant name**
**Grant code / Reference number**
**Is the source of funding the same sponsor organization/entity?**
Yes
**Title of funding source**
Zahedan 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**
Zahedan University of Medical Sciences
**Full name of responsible person**
Mahsa Zakerzadeh

**Position**
student
**Latest degree**
Bachelor
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Physiotherapy
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## Person responsible for updating data

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