

Clinical Trial Protocol

Iranian Registry of Clinical Trials

13 Jun 2026

Comparing upper cervical and cranium joint dysfunctions by measuring sonographic data of muscles / Effect of eye movement exercises on instantaneous blood pressure changes in hypertensive and normotensive groups with craniocervical joint dysfunctions

Protocol summary

Study aim

Main goals : 1) Comparing upper cervical and cranium joint dysfunctions between normotensive and hypertensive groups by measuring neck muscle thickness using sonographic data 2)Comparing changes of instantaneous blood pressure before and after of eye gaze exercise therapy 3)Considering dynamic MRI as a measurement tool for cranial rhythmic impulse measurement /comparing cranial rhythmic impulse between normotensive and hypertensive groups using dynamic MRI

Design

Randomized Control Trial

Settings and conduct

Rehabilitation sonography device Dynamic MRI
Biofeedback Heart Rate Variability sensor Laser Headset for Range Of Motion

Participants/Inclusion and exclusion criteria

Hypertension systolic blood pressure 13 to 17.9 mmHg
Hypertension Diastolic blood pressure 80 to 11.9 mmHg
Age 20-50 Primary hypertension (atherosclerosis)
Cardiac disease Renal disease Pulmonary disease
Vertebral malalignment Surgery history Age higher than 50

Intervention groups

one group will receive eye gaze exercises and the other group will receive placebo (just staring at a point , not to move head or eye)

Main outcome variables

Sonographic (CSA) data of deep neck flexors and extensors Dynamic MRI of cranium for cranial rhythmic impulse Heart rate variability Neck ROM

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20190815044535N1**

Registration date: **2023-03-05, 1401/12/14**

Registration timing: **registered_while_recruiting**

Last update: **2023-03-05, 1401/12/14**

Update count: **0**

Registration date

2023-03-05, 1401/12/14

Registrant information

Name

Pezhman Masoudi

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 21 2285 7585

Email address

masoudip2002@yahoo.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2023-02-04, 1401/11/15

Expected recruitment end date

2023-06-20, 1402/03/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparing upper cervical and cranium joint dysfunctions by measuring sonographic data of muscles / Effect of eye movement exercises on instantaneous blood pressure changes in hypertensive and normotensive groups with craniocervical joint dysfunctions

Public title

Cervicocranium joint dysfunctions / eye movement exercise blood pressure effects in normotensive and hypertensive groups

Purpose

Basic science

Inclusion/Exclusion criteria

Inclusion criteria:

Hypertension systolic blood pressure 13 to 17.9 mmHg
Hypertension Diastolic blood pressure 80 to 11.9 mmHg
Age 20-50

Exclusion criteria:

Primary hypertension (atherosclerosis) Cardiac disease
Renal disease Pulmonary disease Vertebral malalignment
Surgery history Age higher than 50 Taking drugs for hypertension

Age

From **20 years** old to **50 years** old

Gender

Both

Phase

N/A

Groups that have been masked

- Participant

Sample size

Target sample size: **50**

Randomization (investigator's opinion)

Randomized

Randomization description

Simple randomized block design

Blinding (investigator's opinion)

Single blinded

Blinding description

The groups will be blind to procedure of exercise therapy and the way it may work to reduce blood pressure

Placebo

Used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of university of social welfare and rehabilitation

Street address

Daneshyar alley , Daneshjoo Blv , Daneshjoo Square

, Velenjak, Tehran

City

tehran

Province

Tehran

Postal code

1985713871

Approval date

2023-03-02, 1401/12/11

Ethics committee reference number

IR.USWR.REC.1401.237

Health conditions studied

1

Description of health condition studied

Hypertension, Cervicocranium joint dysfunction

ICD-10 code

I15

ICD-10 code description

Secondary hypertension

Primary outcomes

1

Description

Instantaneous blood pressure

Timepoint

Before and just after intervention

Method of measurement

Blood pressure measuring device

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: hypertensive group with cervicocranium joint dysfunction which receives eye movement exercise therapy

Category

Treatment - Other

2

Description

Control group: hypertensive group with cervicocranium joint dysfunction which receives placebo

Category

Placebo

Recruitment centers

1

Recruitment center

Name of recruitment center

Physiotherapy research laboratory of university of social welfare and rehabilitation

Full name of responsible person

Pezhman Masoudi

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Daneshyar alley , Daneshjoo Blv , Daneshjoo Square , Velenjak, Tehran

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

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Full name of responsible person

karimi nouredin

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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

University of social welfare and rehabilitation 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**

University of social welfare and rehabilitation sciences

Full name of responsible person

Nouredin karimi

Position

Associate professor

Latest degree

Ph.D.

Other areas of specialty/work

Physiotherapy

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Sharing plan**Deidentified Individual Participant Data Set (IPD)**

Yes - There is a plan to make this available

Study Protocol

Yes - There is a plan to make this available

Statistical Analysis Plan

Yes - There is a plan to make this available

Informed Consent Form

Yes - There is a plan to make this available

Clinical Study Report

Yes - There is a plan to make this available

Analytic Code

Yes - There is a plan to make this available

Data Dictionary

Yes - There is a plan to make this available

Title and more details about the data/document

Part of data including interventional part of study would
be available if asked .

When the data will become available and for how long

After 4 months if not required by journals or other
organizations, data would be vanished

To whom data/document is available

Journals , Research committee

Under which criteria data/document could be used

Future related researches

From where data/document is obtainable

To first author

What processes are involved for a request to access data/document

Asking by sending email to first author

Comments