

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

Comparison and evaluation of lateral gastrocnemius motor neuron excitability in two different kinesiotaping methods: origin to insertion versus insertion to origin

Protocol summary

Summary

The objective of this study was to evaluate the direction of kinesio taping on the excitability of the motorneurons of lateral head of gastrocnemius. Considering the previous studies, 20 subjects entered the study. Inclusion criteria: healthy neuromuscular system, aged between 18 & 25 years old. Exclusion criteria: skeletal and muscular disorders since 2 years ago, neurological or rheumatological disorders, low back pain & radiculopathy, leg length discrepancy, foot deformities, trigger points of lateral gastrocnemius, and female subjects in their menstrual cycle. It was a cross over RCT. The participants were recruited with sample on convenience method. Taping type order was determined using block permutation with block size f 2. In the first day, after recording H reflex and M wave, selected taping technique was applied on the right leg of prone lied participant & H reflex and M wave were recorded immediately. After removing the tape, the participant referred 24 hours later. After recording H reflex and M wave on the second day, other taping technique was applied and H reflex and M wave were recorded immediately. Ultimately, data were compared.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2015062915932N11**
Registration date: **2015-11-11, 1394/08/20**
Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2015-11-11, 1394/08/20

Registrant information

Name

Alireza Motealleh

Name of organization / entity

Shiraz University of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

+98 71 1626 5108

Email address

motealleh@sums.ac.ir

Recruitment status

Recruitment complete

Funding source

Deputy for Research of Shiraz University of Medical Sciences

Expected recruitment start date

2015-07-11, 1394/04/20

Expected recruitment end date

2015-08-22, 1394/05/31

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison and evaluation of lateral gastrocnemius motor neuron excitability in two different kinesiotaping methods: origin to insertion versus insertion to origin

Public title

evaluation of the effects of tape on excitability of spine

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: healthy neuromuscular system; age

between 18 and 25 years old Exclusion criteria: joint or muscular pain since 2 years ago (self- reported); rheumatological and neurological disorders since 2 years ago (self- reported);low back pain or radiculopathies (based on medical history or clinical evaluation); leg length discrepancy; foot deformities (flat foot); trigger points in gastrocnemius muscle; drug or alcohol abuse; female participants at their menstruation cycle

Age

From **18 years** old to **25 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **20**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Single blinded

Blinding description

Placebo

Not used

Assignment

Crossover

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Research Center of School of Rehabilitation of Shiraz
University of Medical Science

Street address

NO.32, Abiverdi 1 Avenue, Chamran Blvd, Shiraz

City

Shiraz

Postal code

Approval date

2015-08-02, 1394/05/11

Ethics committee reference number

IR.SUMS.REC.1394.85

Health conditions studied

1

Description of health condition studied

healthy participants

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

Hmax/Mmax after facilitatory taping

Timepoint

before taping, immediately after taping

Method of measurement

medelec, saphirII

Secondary outcomes

1

Description

Hmax/Mmax after inhibitory taping

Timepoint

before taping, immediately after taping

Method of measurement

medelec, saphirII

Intervention groups

1

Description

Application of facilitatory and inhibitory taping on lateral head of gastrocnemius muscle group1: intervention1: inhibitory tape: applying tape with 25 % of stretch over the balk of muscle from insertion to origin intervention2 : facilitatory tape: applying tape with 50 % of stretch over the balk of muscle from origin to insertion

Category

Treatment - Other

2

Description

group2: intervention2 : facilitatory tape: applying tape with 50 % of stretch over the balk of muscle from origin to insertion intervention1: inhibitory tape: applying tape with 25 % of stretch over the balk of muscle from insertion to origin

Category

Treatment - Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Deputy for research, School of Rehabilitation, Shiraz
University of Medical Sciences

Full name of responsible person

Dr Amin Kordi Yoosefinejad

Street address

NO.32, Abiverdi 1 Avenue, Chamran Blvd, Shiraz

City

Shiraz

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Deputy for research, School of Rehabilitation, Shiraz
University of Medical Sciences

Full name of responsible person

Dr Basir Hashemi

Street address

NO.32, Abiverdi 1 Avenue, Chamran Blvd, Shiraz

City

Shiraz

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

Yes

Title of funding source

Deputy for research, School of Rehabilitation, Shiraz
University of Medical Sciences

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 University of Medical
sciences

Full name of responsible person

Dr. Amin Kordi Yoosefinejad

Position

PhD in physiotherapy

Other areas of specialty/work**Street address**

NO.32, Abiverdi 1 Avenue, Chamran Blvd, Shiraz

City

Shiraz

Postal code**Phone**

+98 71 3626 1081

Fax**Email**

yoosefinejad@sums.ac.ir

Web page address

Person responsible for scientific inquiries

Contact**Name of organization / entity**

School of Rehabilitation of Shiraz University of
Medical Sciences

Full name of responsible person

Dr. Amin Kordi Yoosefinejad

Position

PhD in physiotherapy

Other areas of specialty/work**Street address**

NO.32, Abiverdi 1 Avenue, Chamran Blvd, Shiraz

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

Dr. Amin kordi Yoosefinejad

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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