

Clinical Trial Protocol

Iranian Registry of Clinical Trials

11 Sep 2026

Immediate effect of hip abductor muscles kinesio taping on static and dynamic balance before and after muscular fatigue induction in elderly people

Protocol summary

Study aim

According to the role of hip abductor muscles in controlling balance and their function in preventing falls in the elderly, the purpose of this research is to study the immediate effect of hip abductors muscles Kinesio Taping before and after induction of fatigue in elderly population.

Design

a randomized, triple-blinded, sham-controlled clinical trial with a parallel group design of 13 participants in each group which were randomized by concealed cards put in a pocket.

Settings and conduct

The study was carried out in the biomechanic laboratory of Tehran University of medical sciences. Firstly, the balance tests were assessed. Then KT was applied to hip abductor muscles followed by assessing balance tests. Finally, muscle fatigue was induced followed by assessment of balance tests.

Participants/Inclusion and exclusion criteria

eligibility criteria: age between 60 to 75 years old, independence of instrumental walking aids, ability to perform activities of daily living independently. The following are not eligible for the study: decompensated heart failure, neurological or muscular disease, significant visual changes, complaints of dizziness, history of hip or knee arthroplasty, unconsolidated fractures, open wounds or scar tissues in the region of applying KT.

Intervention groups

Intervention group: applied KT with tension Control group: Applied KT without tension²⁶

Main outcome variables

Single leg stance test; maximum gait speed; star excursion balance test

General information

Reason for update

Acronym

KT = kinesiotape

IRCT registration information

IRCT registration number: **IRCT20230205057324N1**

Registration date: **2023-03-11, 1401/12/20**

Registration timing: **registered_while_recruiting**

Last update: **2023-03-11, 1401/12/20**

Update count: **0**

Registration date

2023-03-11, 1401/12/20

Registrant information

Name

Mohsen Rezvani

Name of organization / entity

Country

Iran (Islamic Republic of)

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+98 51 4221 8531

Email address

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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2023-03-01, 1401/12/10

Expected recruitment end date

2023-05-21, 1402/02/31

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty		Participants will be aware of the method of taping being used on them, but they will not be aware of which group they have been allocated to. Participants are not aware of how the KT is used for the other group. Participants will not meet each other. The evaluating researcher does not know which group the participants belong to and a comfortable wearing hides the region in which KT is applied. The data analyzer is blinded for the Sham or Intervention group and knows the groups by the name 1 and 2.	
Scientific title	Immediate effect of hip abductor muscles kinesio taping on static and dynamic balance before and after muscular fatigue induction in elderly people	Placebo	Used
Public title	Immediate effect of hip abductor muscles kinesio taping on static and dynamic balance before and after muscular fatigue induction in elderly people	Assignment	Other
Purpose	Prevention	Other design features	
Inclusion/Exclusion criteria	Inclusion criteria: age between 60 and 75 years old independence for using instrumental aids independence for activities of daily living normal or controlled blood pressure with medicine Exclusion criteria: decompensated Heart Failure neurologic diseases or conditions such as MSA, TBI, CVA, MS and CP presence of muscular dysfunctions such as myopathies, fibrositis and MG presence of dizziness complains of visual problems which interfere with balance control history of knee or hip arthroplasty surgery presence of unconsolidated fractures diabetes mellitus interfering with detection of application in the soles of the feet presence of open wounds in lower limbs presence of unhealed scar tissues in the region of applying KT	Secondary Ids	empty
Age	From 60 years old to 75 years old	Ethics committees	
Gender	Both	1	
Phase	N/A	Ethics committee	
Groups that have been masked	- Participant - Outcome assessor - Data analyser	Name of ethics committee	Ethics committee of Tehran University of Medical Sciences
Sample size	Target sample size: 26	Street address	No. 179, Somayyeh Ave, Tehran, Iran
Randomization (investigator's opinion)	Randomized	City	Tehran
Randomization description	Randomization will be based on a single sequence (simple randomization) and the random number table method will be used, so that the table is read from the above and even numbers are considered for the intervention group (Kinesio taping with tension) and odd numbers are for the control group. allocation concealment will be done using sealed opaque envelopes and each of the random sequences will be recorded on a card and the cards will be placed inside the envelopes. In the end, after gluing the lid of the envelopes they will be placed inside a box. 26 envelopes will be placed inside the box. at the beginning of the study, one of the envelopes will be opened in order and the assigned group for each participant will be revealed.	Province	Tehran
Blinding (investigator's opinion)	Triple blinded	Postal code	۱۵۸۱۷۴۹۷۱۱
Blinding description		Approval date	2023-02-01, 1401/11/12
		Ethics committee reference number	IR.TUMS.FNM.REC.1401.159
		Health conditions studied	
		1	
		Description of health condition studied	-
		ICD-10 code	
		ICD-10 code description	
		Primary outcomes	
		1	
		Description	single leg stance time
		Timepoint	Baseline assessment, after applying KT, after inducing muscle fatigue
		Method of measurement	stopwatch

2

Description

reached distances in Star Excursion Balance Test

Timepoint

Baseline assessment, after applying KT, after inducing muscle fatigue

Method of measurement

tape measure

3

Description

Maximum gait speed

Timepoint

Baseline assessment, after applying KT, after inducing muscle fatigue

Method of measurement

utilization of speed measurement formula (distance divided by time)

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: Gluteus Medius excitatory taping method was used for the intervention group. 2 I shaped tapes in which only the middle third was held in 35% tension was attached to the skin, one from the anterior part of the Iliac crest to the greater trochanter of the femur, and the other from the posterior part of the iliac crest to the greater trochanter of the femur. tape length was measured for each individual separately. Messon KT made in China was utilized in this study. In this brand of KT, in a 10-centimeter cut of tape, when held in 35% tension, a 2-centimeter increase in length happens.

Category

Rehabilitation

2

Description

Control group: only one I shape piece of KT with no tension in horizontal direction will be placed in the lateral side of hip joint, on the skin of abductor muscles region.

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Rehabilitation school of Tehran University of Medical Sciences

Full name of responsible person

Mohsen Rezvani

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No 179, Somayyeh Ave, Tehran, Iran

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Tehran University of Medical Sciences

Full name of responsible person

Akbar Fotouhi

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Vice Chancellor for research and Technology, Sixth Floor, Central University Organization, corner of Quds Street, Keshavarz Boulevard

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Province

Tehran

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Phone

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Email

research@tums.ir

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Tehran 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

Tehran University of Medical Sciences

Full name of responsible person

Mohsen Rezvani

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student
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Person responsible for scientific inquiries

Contact

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Person responsible for updating data

Contact

Name of organization / entity
Tehran University of Medical Sciences
Full name of responsible person
Mohsen Rezvani
Position

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

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

Title and more details about the data/document

All data will be available after unidentification.

When the data will become available and for how long

The access period starts 3 months after the article is published

To whom data/document is available

For researchers working in academic, scientific and hospital institutions.

Under which criteria data/document could be used

Researchers working in the field of elderly rehabilitation

From where data/document is obtainable

Applicants could contact Mr. Rezvani via E-mail:
pt.rezvani@gmail.com

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

After identification of the applicant, the data will be sent to their mail.

Comments