

Clinical Trial Protocol

Iranian Registry of Clinical Trials

27 May 2026

Comparing the effect of Kinesio Taping (KT) and Placebo Taping (P) on Lateral Abdominal Wall and Lumbar Multifidus Muscles Thickness Change in Subjects With Non-Specific Chronic Low Back Pain

Protocol summary

Study aim

Effect of Kinesio Taping on Thickness Changes of Lateral Abdominal and Multifidus Muscles in Non-Specific Chronic Low Back Pain

Design

Randomized control trial, with two parallel groups and double blinded

Settings and conduct

This research is a double-blind, control clinical trial. This research is carried out at the Tehran University of Medical Sciences Rehabilitation Faculty Research Center. In this research, a pilot and reliability study will be conducted than main research will be done. Subjects enter the research after completing the consent form, understanding of how to do the research and having the inclusion criteria . Individual information is collected by questionnaire. After the randomization, the subject is placed in one of the intervention or control groups. Ultrasound findings from abdominal and lumbar muscles are collected before intervention. For the intervention group, the kinesio taping of the lumbar and abdominal muscles are used, and the placebo taping is used for the control group. After 72 hours, reassessment takes place. In this study, participants, data collectors and data analyzers are blinded.

Participants/Inclusion and exclusion criteria

Inclusion criteria: Subjects aged 25 - 55 years with history of low back pain Lasting more than 3 Pain intensity between 4-7 of the Visual Analog Scale (VAS)
Exclusion criteria: Allergic sign of kinesio taping Taking painkiller during research

Intervention groups

In the intervention group, kinesio taping of the lumbar and abdominal muscles is performed and placebo taping is used for the control group.

Main outcome variables

Pain intensity; Disability level; Muscle Thickness change

(transvers abdominis (TrA), internal oblique (IO), external oblique (EO) and multifidus (MF)) in both sides, left and right

General information

Reason for update

Change the number of groups, outcome measures and end of the study

Acronym

IRCT registration information

IRCT registration number: **IRCT20090301001722N20**
Registration date: **2018-05-21, 1397/02/31**
Registration timing: **prospective**

Last update: **2020-05-17, 1399/02/28**

Update count: **1**

Registration date

2018-05-21, 1397/02/31

Registrant information

Name

Samira Karimpour

Name of organization / entity

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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2018-06-05, 1397/03/15

Expected recruitment end date

2018-12-06, 1397/09/15

Actual recruitment start date

2018-07-06, 1397/04/15

Actual recruitment end date

2018-12-21, 1397/09/30

Trial completion date

2018-12-21, 1397/09/30

Scientific title

Comparing the effect of Kinesio Taping (KT) and Placebo Taping (P) on Lateral Abdominal Wall and Lumbar Multifidus Muscles Thickness Change in Subjects With Non-Specific Chronic Low Back Pain

Public title

Effect of Kinesio Taping (KT) on Abdominal and Lumbar Muscles Thickness Change in Chronic Low Back Pain

Purpose

Treatment

Inclusion/Exclusion criteria**Inclusion criteria:**

Lasting more than 3 months and radiating no further than the buttock Pain intensity between 4-7 of the Visual Analog Scale (VAS) No open wounds and skin diseases No previous history of neurological disease No previous history of sciatica or other radicular involvement No previous history of disc herniation No previous history of spine surgery No previous history of rheumatic diseases and diabetes No previous history of mental disease No pregnancy No previous history of neuromuscular diseases

Exclusion criteria:

Allergic sign of kinesio taping Taking painkiller during research

Age

From **25 years** old to **55 years** old

Gender

Both

Phase

N/A

Groups that have been masked

- Participant
- Investigator
- Outcome assessor
- Data analyser

Sample size

Target sample size: **60**

Actual sample size reached: **56**

Randomization (investigator's opinion)

Randomized

Randomization description

Simple randomization is used in the form of a random number table. Participants will be randomly assigned to their treatment groups according to the numbers obtained from the table, KT group (00-30), placebo (30-60) and control group or without tape (60-90). The allocation of the subjects will be concealed by using sequentially numbered, sealed and opaque envelopes. On the first day of treatment, the envelope allocated will be opened by participant.

Blinding (investigator's opinion)

Double blinded

Blinding description

Participants will be blinded to the study hypotheses (ie, KT versus Placebo or control). Due to the nature of the interventions it was not possible to blind the researcher. So, the first researcher will apply the typing method, while the second researcher will be blind as the data evaluator. Data analyzer is also blind who is first researcher.

Placebo

Used

Assignment

Parallel

Other design features**Secondary Ids**

empty

Ethics committees**1****Ethics committee****Name of ethics committee**

Ethics committee of Tehran University of Medical Sciences

Street address

Keshavarz bolvar, Ghods Ave, 6 floor, Tehran University of Medical Science building

City

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Tehran

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1417653761

Approval date

2017-05-29, 1396/03/08

Ethics committee reference number

IR.TUMS.FNM.REC.1396.2448

Health conditions studied**1****Description of health condition studied**

Non Specific Chronic Low Back Pain

ICD-10 code

M54.5

ICD-10 code description

Low back pain

Primary outcomes**1****Description**

Pain intensity

Timepoint

Before and 72 hours after intervention

Method of measurement

Visual Analogue Scale (VAS) and Short-form McGill Pain Questionnaire

2

Description

Disability index

Timepoint

Before and 72 hours after intervention

Method of measurement

Oswestry disability Questionnaire

3

Description

contraction ratio

Timepoint

Before and 72 hours after intervention

Method of measurement

In formula

4

Description

resting and contracted thickness

Timepoint

Before and 72 hours after intervention

Method of measurement

Using an ultrasound cursor, the thickness of each muscle is determined in millimetres

Secondary outcomes

1

Description

Lumbar proprioception

Timepoint

Before and 72 hours

Method of measurement

Measurements of lumbar repositioning error (45 and 60 degree of flexion and 15 degree of extension) using double bubble inclinometer

Intervention groups

1

Description

Intervention group: Kinesio taping of the lumbar and abdominal muscles is performed

Category

Treatment - Other

2

Description

Placebo group: Placebo taping is used for the lumbar and abdominal muscles

Category

Placebo

3

Description

Control group: without taping

Category

N/A

Recruitment centers

1

Recruitment center

Name of recruitment center

Rehabilitation cilinic of Tehran University of Medical Science

Full name of responsible person

Dr Mohsen Mir

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

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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

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

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

No - There is not a plan to make this available

Justification/reason for indecision/not sharing IPD

All rights of this research belongs to TUMS.

Study Protocol

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

Statistical Analysis Plan

Not applicable

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

Not applicable

Data Dictionary

Not applicable