Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

The effect of Kinesio taping with occupational therapy on Range of motion and hand grip strength in stroke patients

Protocol summary

Study aim

Overall objective: The Effect of Kinesio Taping on Range of motion and hand grip strength in stroke patients Specials Objectives: 1- Comparison the Mean grip strength before and after the intervention and between the groups 2- Comparison the Mean Range of motion hand before and after the Intervention and between the groups 3- Comparison the Mean of dexterity and fine motor hand before and after the Intervention and between the groups

Design

This study Was a Single-Blind RCT that 34 patients with stroke who referred to rehabilitation stroke centers Tabbasom in Tehran was randomly assigned in two intervention and control group.

Settings and conduct

This study was carried out in the Field of Rehabilitation and the effect of Kinesio Taping Techniques on Range of motion and grip strength in stroke patients that was registered at Baqiyatallah University of Medical Sciences and was done at rehabilitation stroke centers Tabbasom in Tehran.

Participants/Inclusion and exclusion criteria

1) Diagnosis of stroke with Neurologist 2) Ṡtage 4 of Brunnstrom recovery stages of hand function 3)Considering a minimum of 6 months after their last stroke occurrence, 4) Not being under treatment for spasticity 5) No sensory problems 1. Acute or chronic pain in upper limb when studying 2. Sensitivity to taping 3. Irregular appearance in therapeutic sessions 4. No desire to continue treatment

Intervention groups

The intervention group used kinsiotaping for 6 weeks, 24 hours, and changed every three days.Secondary evaluation was performed after 6 weeks. For kinsiotaping, a spring correction technique, which is applied as an I to the extensor muscle of the wrist, is used that The tape is applied with 50 to 100 percent possible tensile strength on the skin.

Main outcome variables

Increase range of motion and hand grip strength and Reducing Disability

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20180531039929N1**
Registration date: **2018-08-03, 1397/05/12**
Registration timing: **retrospective**

Last update: **2018-08-03, 1397/05/12**
Update count: **0**

Registration date

2018-08-03, 1397/05/12

Registrant information

Name

Fathollah Qafarizadeh

Name of organization / entity

Country

Iran (Islamic Republic of)

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+98 21 7704 7253

Email address

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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2018-01-05, 1396/10/15

Expected recruitment end date

2018-02-19, 1396/11/30

Actual recruitment start date

2018-01-05, 1396/10/15

Actual recruitment end date

2018-02-19, 1396/11/30

Trial completion date

empty

Scientific title

The effect of Kinesio taping with occupational therapy on Range of motion and hand grip strength in stroke patients

Public title

The effect of Kinesio taping with occupational therapy on Range of motion and hand grip strength in stroke patients

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

1) Diagnosis of stroke with Neurologist specialist 2)Upper limb involvement 3) Satisfaction to participate in the research 4)Ability to follow commands(absence of cognitive deficits) 5) Stage 4 of Brunnstrom recovery stages of hand function 6)Considering a minimum of 6 months after their last stroke occurrence, 7) The absence of other neurological pathologies for example parkinson,MS,... 8) The absence of orthopedic disorders in the upper limb such as fractures 9) Not being under treatment for spasticity 10) No sensory problems

Exclusion criteria:

1. Acute or chronic pain in upper limb when studying 2. Sensitivity to taping 3. Irregular appearance in therapeutic sessions 4. No desire to continue treatment

Age

From **20 years** old to **70 years** old

Gender

Both

Phase

N/A

Groups that have been masked

- Participant

Sample size

Target sample size: **34**

Actual sample size reached: **34**

Randomization (investigator's opinion)

Randomized

Randomization description

A random selection was done by lottery, in which the participant chose one of the two papers (intervention and control).

Blinding (investigator's opinion)

Single blinded

Blinding description

Participant was unaware of being in the treatment or control group.

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of Bagheiatallah University of Medical Sciences

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Shekh Bahayi street, Blvd Molasadra

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1435917341

Approval date

2017-12-06, 1396/09/15

Ethics committee reference number

IR.BMSU.REC.1395.34

Health conditions studied

1

Description of health condition studied

Stroke

ICD-10 code

G46.4

ICD-10 code description

Cerebellar stroke syndrome

Primary outcomes

1

Description

Range of motion

Timepoint

Before the intervention, Immediately after the intervention, 6 weeks after the intervention

Method of measurement

Goniometer, Degree

2

Description

Hand grip strength

Timepoint

Before the intervention, Immediately after the intervention, 6 weeks after the intervention

Method of measurement

Vigorimeter , Kilopascal

3

Description

Dexterity hand function(Box and block test, Nine hole

peg test)

Timepoint

Before the intervention, Immediately after the intervention, 6 weeks after the intervention

Method of measurement

Number of nail and block movement

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: Kinsiotaping We considered three times assessments to collect data: 1- initial assessment before KT, 2- secondary assessment one month after KT. After obtaining signed consent forms and initial assessment, Taping was performed by the OT. The subjects were taped in accordance with Kenzo Kase’s Kinesiotaping Manual (Kase, 2016). We use a piece of the TEM TEX brand tape that has five Centimeter width and fifteen Centimeter length. Taping was applied in the sitting position in which wrist muscles were in resting position and forearm was in natural pronated. A I- strip of tape was placed on the extensor muscles of the forearm from proximal to distal (origin of extensor muscles to distal of metacarpals) and stretched approximately to 50% of its maximum length. Tape was changed each three days or in necessary situation.

Category

Rehabilitation

2

Description

Control group: Occupationaltherapy without Kinsiotaping

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Rehabilitation stroke center Tabbasom

Full name of responsible person

Dr. Roozbeh Kazemi

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No. 26, Bagher khan gharbi street, Sattar khan street

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Bagheiat-allah University of Medical Sciences

Full name of responsible person

Dr.Alireza Shamsodini

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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

Bagheiat-allah University of Medical Sciences

Proportion provided by this source

100

Public or private sector

Private

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

Bagheiat-allah University of Medical Sciences

Full name of responsible person

Fathollah Qafarizadeh

Position

Occupational Therapy

Latest degree

Master

Other areas of specialty/work

Occupational Therapy

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Position
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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
Not applicable

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

Clinical Study Report
Not applicable

Analytic Code
Not applicable

Data Dictionary
Not applicable