Clinical Trial Protocol
Iranian Registry of Clinical Trials

10 Jun 2026

Effect of kinesio taping on fine dexterity of hand in children with spastic cerebral palsy

Protocol summary

Summary

One of the physical dysfunctions in cerebral palsy is hand impairments that limit the ability of functional activity such as fine dexterity of hand. The aim of this study is evaluation of the efficacy of kinesiotaping on dexterity of hand in children with spastic cerebral palsy In This study children with cerebral palsy (4 -14 years old), who had wrist flexion and thumb-in-palm deformity entered and showed skin sensitivity to kinesiotape were excluded from the study. The total number of samples was 36 and in each group was 18 children and they were randomly divided into two groups. In both groups, Kinesio tape applied over dorsal aspect of forearm, wrist and thumb and it stayed for 2 days. The dexterity of two groups were evaluated initially, with taping immediately, 30 minute and 2 days later and 2 days after tape removal. Control group received a placebo, kinesiotape without tension and evaluated such as intervention group.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2016112631098N1**
Registration date: **2017-02-23, 1395/12/05**
Registration timing: **retrospective**

Last update:
Update count: **0**

Registration date

2017-02-23, 1395/12/05

Registrant information

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Name of organization / entity

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Recruitment status

Recruitment complete

Funding source

Shahid Beheshti University of Medical Siences

Expected recruitment start date

2015-06-22, 1394/04/01

Expected recruitment end date

2015-09-23, 1394/07/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effect of kinesio taping on fine dexterity of hand in children with spastic cerebral palsy

Public title

Effect of kinesio tape on cerebral palsy hand dexterity

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: children with cerebral palsy (age; 4 -14 years old) and thumb in the palm of the hand and wrist flexion deformity problem that can be changed; cognitive ability to follow verbal commands and instructions for testing; less muscle tone modified Ashworth scale score of 3; lack of orthopedic disorders in the upper limbs such as contractures and limited range of passive motion; the lack of any type of orthopedic surgery and injections of botulinum toxin in the last 6 months. Exclusion criteria: skin sensitivity to taping

Age

From **4 years** old to **14 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **36**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Double blinded

Blinding description

Placebo

Used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

"Shahid Beheshti University of Medical Sciences"

Street address

7th Floor, Bldg No.2 SBUMS, Arabi Ave, Daneshjoo Blvd, Velenjak, Tehran, Iran

City

Tehran

Postal code

198396-3113

Approval date

2016-01-10, 1394/10/20

Ethics committee reference number

IR.SBMU.RAM.REC.1394.444

Health conditions studied

1

Description of health condition studied

spastic cerebral palsy

ICD-10 code

G80.0, G80

ICD-10 code description

G80.0 spastic quadroplegic cerebral palsy, G80.1 spastic diplegic cerebral palsy, G80.2 spastic hemiplegic cerebral palsy

Primary outcomes

1

Description

hand fine dexterity

Timepoint

evaluated initially, with taping Immediately, 30 minute and 2 days later and 2 days after tape removal

Method of measurement

It is ability to use small muscle groups to manipulate objects by controlling of fine movement, especially in the arm. Fine motor skills obtained in this study based on the time of insertion and removal of the 9 peg in Pegboard using by nine hole peg test

2

Description

spasticity

Timepoint

evaluated initially, with taping Immediately, 30 minute and 2 days later and 2 days after tape removal

Method of measurement

It is increasing the muscle tone and stretch reflex and recognized by increase resistance to passive stretch. The resistance to passive motion in extension and adduction movements of the thumb and wrist extension based on modified ashworth criteria is scoring from 0 to 4

Secondary outcomes

1

Description

Hand and upper extremity gross dexterity

Timepoint

evaluated initially, with taping Immediately, 30 minute and 2 days later and 2 days after tape removal

Method of measurement

Hand and upper extremity gross dexterity is the ability of person to do gross movements with low velocity and fine movements with high velocity that needs to more range of motions and coactivity that assessed by box and block

Intervention groups

1

Description

Intervention group: Kinesiotap applied on extensor and abductor pollicis longus with 30% 0f tension and dorsal of the wrist and forearm with 70% of tension for improving muscle performance.

Category

Treatment - Drugs

2

Description

Control group: Kinesiotape applied the as same as intervention group but without tension.

Category

Rehabilitation

Recruitment centers

1

Recruitment center
Name of recruitment center
Ebn e Sina Clinic & valiasr Rehabilitation center
Full name of responsible person
Street address
City
Tehran

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Full name of responsible person
Zahra Shafiee
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Rehabilitaio School, Damavand street, Emam Hosein Square, Tehran, Iran
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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
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

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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