Clinical Trial Protocol
Iranian Registry of Clinical Trials

16 Sep 2026

The effects of treadmill training on gait speed, endurance and quality of life in adults with spastic cerebral palsy

Protocol summary

Summary

Abstract: Walking disability especially reduction of speed and endurance of walking not only deteriorates walking but also affect on their psycho social health and quality of life. One of the methods has used to improve walking disability in children with cerebral palsy in recent years is walking on treadmill training with or without body weight support. Most of the studies have shown the effect of treadmill training on motor impairments of children with cerebral palsy, however randomized clinical trial studies on adults with cerebral palsy are few. This research will be done three times a week for six weeks. Thirty adults with spastic cerebral palsy will be admitted and randomly will be assigned in two groups. Blindness will perform in patients. In addition, data analysis will have done by statistic consultant. Control group will take routine physiotherapy and intervention group will take routine physiotherapy besides thirty minutes of treadmill training.Walking speed and endurance and Quality of life assessments will be done before treatment, in the 9th session, and after treatment and one month after last session of follow up.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2014022216680N1**
Registration date: **2014-09-10, 1393/06/19**
Registration timing: **registered_while_recruiting**

Last update:
Update count: **0**

Registration date

2014-09-10, 1393/06/19

Registrant information

Name

Shohreh Noorizadeh Dehkordi

Name of organization / entity

Iran University of Medical Sciences, School of Rehabilitation Sciences

Country

Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

Iran University of Medical Sciences

Expected recruitment start date

2014-08-23, 1393/06/01

Expected recruitment end date

2014-11-23, 1393/09/02

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effects of treadmill training on gait speed, endurance and quality of life in adults with spastic cerebral palsy

Public title

The effects of treadmill training on walking and quality of life in adults with cerebral palsy

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria are being male or female with age range between 18 to 35 with diagnosis of spastic cerebral palsy, the ability to ambulate with or without an assistive device, and the ability to follow verbal commands. Exclusion criteria are having orthopedic

surgery or neurosurgery in the past 12 months, taking anti spastic medications orally or by injection in the past 6 months, having fixed contracture in the lower body joints, having orthopedic or neurologic illness that affects walking, uncontrolled cardiovascular disease or epilepsy.

Age
From **18 years** old to **35 years** old

Gender
Both

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size:

Randomization (investigator's opinion)
Randomized

Randomization description

Blinding (investigator's opinion)
Single blinded

Blinding description

Placebo
Not used

Assignment
Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
Ethics committee of Iran University of Medical Sciences

Street address
Iran University of Medical Sciences, Hemmmat Expressway, Tehran, Iran

City
Tehran

Postal code

Approval date
2014-07-01, 1393/04/10

Ethics committee reference number
93.105.1582

Health conditions studied

1

Description of health condition studied
Nervous system disease

ICD-10 code
G80.1, G80

ICD-10 code description
Cerebral palsy and other paralytic syndromes

Primary outcomes

1

Description
Walking speed

Timepoint
Exactly before the treatment, in the ninth treatment session, exactly after the treatment and one month after the treatment for follow up

Method of measurement
By using the 10 meter walk test

2

Description
Walking endurance

Timepoint
Exactly before the treatment, in the ninth treatment session, exactly after the treatment and one month after the treatment for follow up

Method of measurement
By using the 6 minute walk test.

3

Description
Quality of life

Timepoint
Exactly before the treatment, in the ninth treatment session, exactly after the treatment and one month after the treatment for follow up

Method of measurement
By using the WHOQOL brief questionnaire

Secondary outcomes

empty

Intervention groups

1

Description
The control group will receive routine exercises (including warm up, stretching, and postural control exercises) for 35 minutes.

Category
Rehabilitation

2

Description
The intervention group besides the treatment of control group, will recieve treadmill training for 30 minutes in three sets of 10 minutes with rest interval between sets.

Category
Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center
Raad Rehabilitation Goodwill Complex

Full name of responsible person
Shohreh Noorizadeh Dehkordi

Street address
Nezam Al., Shahnazari St., Madar Sq., Mirdamad Blvd.,

City
Tehran

Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Vice Cancellor for Research of Iran University of Medical Sciences

Full name of responsible person
Sima Khalina

Street address
School of Rehabilitation Sciences, Nezam Street, Shahnazari Street, Madar Square, Mirdamad, Tehran, Iran

City
Tehran

Grant name

Grant code / Reference number

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

Title of funding source
Vice Cancellor for Research of Iran 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
Vice Chancellor for research of Iran University of Medical Sciences

Full name of responsible person
Seyyed Ali Javad Mousavi

Position
Professor

Other areas of specialty/work

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Person responsible for scientific inquiries

Contact

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Dept. of Physical therapy, School of Rehabilitat Sciences, Iran University of Medical Sciences.

Full name of responsible person
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Ph.D / Assisstant Professor

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Person responsible for updating data

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Msc Student

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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