

Clinical Trial Protocol

Iranian Registry of Clinical Trials

20 Jun 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 receive 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**Street address**

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Person responsible for scientific inquiries

Contact**Name of organization / entity**

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

Full name of responsible person

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Position

Ph.D / Assisstant Professor

Other areas of specialty/work**Street address**

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Full name of responsible person

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Position

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