Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

Efficacy comparison between virtual reality and its modified form on children with hemiplegic CP

Protocol summary

Summary

The aim of the present study is to improve upper limb performance in children with hemiplegic cerebral palsy. A total of fifteen children with hemiplegic cerebral palsy will be recruited and assigned into the following 3 groups, before the initiation of the intervention. The first group receives virtual reality with restraint that exercises are done with E-Link system, the second group receives only Virtual reality treatment without restraint, and the third group is control group, without any intervention. Measurement sessions are done at the baseline, after the intervention, and three month after the intervention.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201010164945N1**
Registration date: **2011-01-21, 1389/11/01**
Registration timing: **registered_while_recruiting**

Last update:
Update count: **0**

Registration date

2011-01-21, 1389/11/01

Registrant information

Name

Hamid Reza Rostami

Name of organization / entity

Ahvaz Jundishapur University of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

+98 61 1374 3101

Email address

rostamihr@ajums.ac.ir

Recruitment status

Recruitment complete

Funding source

Ahvaz Jundishapur University of Medical Sciences

Expected recruitment start date

2010-09-23, 1389/07/01

Expected recruitment end date

2011-03-16, 1389/12/25

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Efficacy comparison between virtual reality and its modified form on children with hemiplegic CP

Public title

Efficacy comparison between virtual reality and its modified form on children with hemiplegic CP

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: Hemiplegic Children, age between 3 and 10 Year, range of motion: 20 degrees in wrist joint and 10 degrees in MP and IP Joints from full flexion, standing balance Exclusion criteria: Deformity, botolinium Toxin Therapy over 6 months prior to the study, history of seizure over 6 months prior to the study, balance problems

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: **15**

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
Ahvaz Jundishapur University of Medical Sciences

Street address
Ahvaz

City
Ahvaz

Postal code

Approval date
2010-06-19, 1389/03/29

Ethics committee reference number
U-89071

Health conditions studied

1

Description of health condition studied
cerebral palsy

ICD-10 code
G80.2

ICD-10 code description
Spastic hemiplegic cerebral palsy

Primary outcomes

1

Description
hand function

Timepoint
Baseline and 3 weeks and 3 months after the intervention

Method of measurement
functional test

Secondary outcomes

1

Description
speed and range of motion

Timepoint
Baseline and 3 weeks and 3 months after the intervention

Method of measurement
functional tests

Intervention groups

1

Description
First Group: virtual reality by E-Link system

Category
Rehabilitation

2

Description
Second Group: Virtual Reality by E-Link system with restraint of non involved upper limb

Category
Treatment - Drugs

3

Description
Control group: no intervention

Category
N/A

Recruitment centers

1

Recruitment center

Name of recruitment center
Ahvaz Hospitals

Full name of responsible person

Street address

City
Ahvaz

Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Ahvaz Jundishapur University of Medical Sciences

Full name of responsible person
Mrs Jaderi

Street address
Ahvaz Jundishapur University of Medical Sciences

City
Ahvaz

Grant name

Grant code / Reference number

Is the source of funding the same sponsor

organization/entity?
Yes
Title of funding source
Ahvaz Jundishapur 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
Ahvaz Jundishapur University of Medical Sciences
Full name of responsible person
Hamid Reza Rostami
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Person responsible for updating data

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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