Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

the effectiveness of early usage of mirror visual feedback on the level of disability and pain in patient with orthopedic injuries in upper limbs.

Protocol summary

Summary

Background: Mirror Visual Feedback is a new method which has yielded good outcomes in various neurological disorders in last decade. This complementary method may positively affect the patients' condition following orthopedic disorders of the upper extremity, because of the effectiveness of neurologic mechanism on outcomes of injuries. The purpose of this study is determining the effect of Mirror Visual Feedback on disability, pain and motor function.This study is a randomized clinical trial that 40 patients with common upper extremity orthopedic disorders(in early phase;7 days after reconstruction surgery) is selected by convenient sampling, randomized into 2 groups of intervention and control with random numbers table. Both groups receive traditional rehabilitation for 8 weeks and follow up evaluation will be occured at twelfth week. In addition, the intervention group receive Mirror visual feedback too. Disability(DASH) and pain(MPQ) are assessed before the intervention, in the sixth, eighth and twelfth weeks. Grip strength, pinch strength, and dexterity are assessed in the eighth and twelfth weeks and range of motion in the sixth, eighth, and twelfth weeks. participants wont realised the group which are placed in, and the assessor therapist will be blinded.

General information

Acronym

MVF

IRCT registration information

IRCT registration number: **IRCT2015121923277N3**

Registration date: **2017-10-08, 1396/07/16**

Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2017-10-08, 1396/07/16

Registrant information

Name

Laleh Lajevardi

Name of organization / entity

Country

Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

research center of Iran University of Medical Sciences-International Campus

Expected recruitment start date

2017-10-01, 1396/07/09

Expected recruitment end date

2018-07-01, 1397/04/10

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

the effectiveness of early usage of mirror visual feedback on the level of disability and pain in patient with orthopedic injuries in upper limbs.

Public title

the effectiveness of mirror visual feed back on patient with orthopedic injuries

Purpose

Treatment

Inclusion/Exclusion criteria

inclusion: age limitation between 18-65 being able to

read and write being under common orthopedic operation such as;tendon injury,soft tissue reconstruction,amputation,bone fracture,pripheral nerve injury and crush injury in 10 days ago. getting score 21 and above in MMSE patients shouldent have inter articular fracture in wrist. exclusion: infection- refuse to continue treatment and evaluation sessions- surgery during intervention period.

Age
From **78 years** old to **31 years** old

Gender
Both

Phase
2-3

Groups that have been masked
No information

Sample size
Target sample size: **40**

Randomization (investigator's opinion)
Randomized

Randomization description

Blinding (investigator's opinion)
Double 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-international campus

Street address
Iran university of Medical Sciences-international campus; beside Milad tower; Hemmat highway

City
Tehran

Postal code

Approval date
2010-09-23, 1389/07/01

Ethics committee reference number
IR.IUMS.REC.1395.9313681001

Health conditions studied

1

Description of health condition studied
Common neuromusculoskletal disorders in upper exterimities

ICD-10 code
M00-M99

ICD-10 code description
Diseases of the musculoskeletal system and connective tissue

Primary outcomes

1

Description
disability of hand

Timepoint
first, 6th,8th and 12th week after surgery

Method of measurement
DASH questionnaire

2

Description
pain

Timepoint
first, 6th,8th and 12th week after surgery

Method of measurement
Mcgill pain questionnaire

3

Description
Range of motion of fingers

Timepoint
6th,8th and 12 th week after surgery

Method of measurement
goniometery

4

Description
dexterity

Timepoint
8th and 12 after surgery

Method of measurement
Minesotta manual dexterity test

5

Description
grip strength

Timepoint
8th and 12th week after surgery

Method of measurement
dynamometer

6

Description
lateral pinch strength

Timepoint
8th and 12 after surgery

Method of measurement
pinch guage

Secondary outcomes

empty

Intervention groups

1

Description
intervention: Rehabilitation sessions began during the first week after surgery for patients in the intervention group.each participant sit in front of a 30 by 50 cm mirror locate in a sagittal plane against the body. Then, client placed the uninjured hand in front of the mirror and the injured hand behind it. each patient move his/her uninjured hand in front of the mirror and flex/extend of his/ her hand. Traditional hand rehabilitation programs were provide for the patients in both groups.The intervention last 8 weeks and During each session, they first received MVF exercises for thirty minutes, and then the hand rehabilitation program for 45 minutes.
Category
Rehabilitation

2

Description
control: according to the type of injury, participants in the control group use traditional rehabilitation interventions two times a week for eight weeks. Duration of each session is 45 minutes.
Category
Rehabilitation

Recruitment centers

1

Recruitment center
Name of recruitment center
Hazrat fatemeh hospital
Full name of responsible person
Dr Laleh Lajevardi
Street address
school of rehabilitation of Iran University of Medical Sciences;Shahnazari Str; Mother Sqr;Mirdamad Blv
City
Tehran

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Vice chancellor for research,International campus of Iran University of Medical Sciences
Full name of responsible person
Dr Ghasemi
Street address
Iran University of Medical Sciences;beside Milad tower;Hemmat highway
City
Tehran
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Vice chancellor for research,International campus 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
School of Rehabilitation Sciences
Full name of responsible person
DR Laleh Lajevardi
Position
PhD of Occupational Therapy, Assistant professor
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Person responsible for updating data

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Hazrat fateme hospital

Full name of responsible person

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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