Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

Comparative analysis of efficacy of muscle energy technique and static stretching techniques in enhancing flexibility following burn contracture in elbow

Protocol summary

Study aim
The study will be conducted to investigate the best technique in increasing flexibility in post burn contractures in elbow joint

Design
This study will be a Randomized clinical trial with a sample size of 60 burn patients with contractures who had decreased muscle flexibility as a result of partial thickness burn. Data will be selected through convenient sampling from the Burn Unit Ward of Allied Hospital, Faisalabad. However, Informed consent will be taken from participants. Palpation, Visual analogue scale and goniometer will be used for pre and post-assessment. Sixty patients will be divided into two groups, thirty in each group. Group (1): received Muscle Energy Technique (MET), Group (2): received 20 sec of static stretching exercise. Measurements of elbow extension range of motion were conducted before treatment, post 5 days of treatment, and after 8 days of treatment.

Settings and conduct
Burn Unit Ward of Allied Hospital, Faisalabad

Participants/Inclusion and exclusion criteria
Inclusion criteria: Age 20-50 years Gender (both) 2nd degree deep and 3rd degree burns in elbow Patients with unilateral tight elbow flexors Superficial skin grafted individual Subjects not involved in any exercise activity at the start of the study Exclusion criteria: history of serious pathology (e.g. malignancy, inflammatory disorder, infection) history of cervical radiculopathy hand deformities fractured or dislocated elbow

Intervention groups
Sixty patients will be divided into two groups, thirty in each group. Group (1): received Muscle Energy Technique (MET), Group (2): received 20 sec of static stretching exercise.

Main outcome variables
Pain; Range of motion

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20220930056062N6**
Registration date: **2024-06-18, 1403/03/29**
Registration timing: **prospective**

Last update: **2024-06-18, 1403/03/29**
Update count: **0**

Registration date
2024-06-18, 1403/03/29

Registrant information

Name
Kaiynat Shafique
Name of organization / entity
The University of Faisalabad
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Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2024-06-19, 1403/03/30

Expected recruitment end date
2024-07-29, 1403/05/08

Actual recruitment start date
empty

Actual recruitment end date
empty

Trial completion date

empty

Scientific title
Comparative analysis of efficacy of muscle energy technique and static stretching techniques in enhancing flexibility following burn contracture in elbow

Public title
Efficacy of muscle energy technique and static stretching techniques in burn contractures of elbow

Purpose
Treatment

Inclusion/Exclusion criteria

Inclusion criteria:
Age 20-50 years Gender (both) 2nd degree deep and 3rd degree burns in elbow Patients with unilateral tight elbow flexors Superficial skin grafted individual Subjects not involved in any exercise activity at the start of the study

Exclusion criteria:
History of serious pathology (e.g. malignancy, inflammatory disorder, infection) Fractured or dislocated elbow Hand deformities History of cervical radiculopathy

Age
From **20 years** old to **50 years** old

Gender
Both

Phase
N/A

Groups that have been masked

- Participant

Sample size
Target sample size: **60**

Randomization (investigator's opinion)
Randomized

Randomization description
Randomization through lottery method. Each participant will be asked to choose between two pieces of paper labeled "Group A" and "Group B." They will be assigned to treatment groups based on the paper they select.

Blinding (investigator's opinion)
Single blinded

Blinding description
Patients will be blind in this clinical trial

Placebo
Not used

Assignment
Other

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
Government College University Faisalabad

Street address
Gulberg Faisalabad

City
Faisalabad

Postal code
38000

Approval date
2024-05-01, 1403/02/12

Ethics committee reference number
5715

Health conditions studied

1

Description of health condition studied
Contracture, elbow

ICD-10 code
M24.52

ICD-10 code description
Contracture, elbow

Primary outcomes

1

Description
Pain

Timepoint
Assessment will be conducted before treatment, post 5 days of treatment and after 8 days of treatment

Method of measurement
Visual analogue scale

2

Description
Range of motion

Timepoint
Assessment will be conducted before treatment, post 5 days of treatment and after 8 days of treatment

Method of measurement
goniometer

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group 1: Muscle Energy Technique

Category
Rehabilitation

2

Description
Intervention group 2: Static Stretching

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center
Allied Hospital faisalabad

Full name of responsible person
Rafia Imtiaz

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Sponsors / Funding sources

1

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Grant name

Grant code / Reference number

Is the source of funding the same sponsor organization/entity?
No

Title of funding source
It is a self funded study. All financial expenses are bear personally

Proportion provided by this source
1

Public or private sector
Private

Domestic or foreign origin
Domestic

Category of foreign source of funding
empty

Country of origin

Type of organization providing the funding
Persons

Person responsible for general inquiries

Contact

Name of organization / entity
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Full name of responsible person
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Position
Lecturer

Latest degree
Master

Other areas of specialty/work
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Sharing plan

Deidentified Individual Participant Data Set (IPD)

No - There is not a plan to make this available

Justification/reason for indecision/not sharing IPD

Privacy concerns

Study Protocol

Undecided - It is not yet known if there will be a plan to make this available

Statistical Analysis Plan

Undecided - It is not yet known if there will be a plan to make this available

Informed Consent Form

Yes - There is a plan to make this available

Clinical Study Report

Undecided - It is not yet known if there will be a plan to make this available

Analytic Code

Undecided - It is not yet known if there will be a plan to make this available

Data Dictionary

Undecided - It is not yet known if there will be a plan to make this available

Title and more details about the data/document

Comparative analysis of efficacy of muscle energy technique and static stretching techniques in enhancing flexibility following burn contracture in elbow

When the data will become available and for how long

Data from this trial will not be made publicly available. However, it may be accessible upon request. For inquiries regarding data access, please contact rafiaimtiaz@gcuf.edu.pk

To whom data/document is available

Data from this trial will not be made publicly available. However, it may be accessible upon request. For inquiries regarding data access, please contact rafiaimtiaz@gcuf.edu.pk.

Under which criteria data/document could be used

Data from this trial will not be made publicly available. However, it may be accessible upon request. For inquiries regarding data access, please contact rafiaimtiaz@gcuf.edu.pk.

From where data/document is obtainable

Data from this trial will not be made publicly available. However, it may be accessible upon request. For inquiries regarding data access, please contact rafiaimtiaz@gcuf.edu.pk.

What processes are involved for a request to access data/document

Data from this trial will not be made publicly available. However, it may be accessible upon request. For inquiries regarding data access, please contact rafiaimtiaz@gcuf.edu.pk.

Comments