Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

Comparative effects of nerve mobilization and active release technique on pain range of motion and disability in carpel tunnel syndrome patients among pregnant women.

Protocol summary

Study aim
To study the comparative effects of active release technique and nerve mobilization technique on the pain, range of motion and disability in carpel tunnel syndrome patient among pregnant women

Design
Study design will be randomized clinical trial.

Settings and conduct
The study will be held at Arif memorial hospital, Lahore.

Participants/Inclusion and exclusion criteria
Pregnant females with age between 20-40 years and having numbness in hands will included in the study. while non pregnant diabetic patients or patients suffering from hypothyroidism, rheumatoid arthritis, osteoarthritis and sarcoidesis will exclude from our research.

Intervention groups
Participants will be divided in two treatment groups. Both groups will be assessed before (pre) and after (post) the treatment. Group A patients will be treated with the active release technique and conventional physical therapy treatment. Group b patient will be treated with nerve mobilization technique and conventional physical therapy treatment.

Main outcome variables
Boston questionnaire will used to assess the symptom severity and functional status in carpal tunnel syndrome patients. NPRS will be used to assess pain severity. Goniometer will be used for wrist range of motion.

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20221205056713N1**
Registration date: **2023-01-24, 1401/11/04**
Registration timing: **prospective**
Last update: **2023-01-24, 1401/11/04**
Update count: **0**

Registration date
2023-01-24, 1401/11/04

Registrant information

Name
hafiza Nida Rasheed

Name of organization / entity
Rashid Latif Medical college, Lahore

Country
Pakistan

Phone
+92 336 4535979

Email address
naddia.rasheed20@gmail.com

Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2023-01-31, 1401/11/11

Expected recruitment end date
2023-06-20, 1402/03/30

Actual recruitment start date
empty

Actual recruitment end date
empty

Trial completion date
empty

Scientific title
Comparative effects of nerve mobilization and active release technique on pain range of motion and disability in carpel tunnel syndrome patients among pregnant women.

Public title
Effects of nerve mobilization and active release

technique in treatment of carpel tunnel syndrome

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Age between 20-40 years. Pregnant women with numbness in hands Subjects with diagnosed carpal tunnel syndrome and related symptoms that scored 3 or worse on the symptom severity and functional status questionnaire

Exclusion criteria:

If subjects have a history of causes of carpal tunnel syndrome e.g. diabetes mellitus, rheumatoid arthritis, chronic renal failure treated by hemodialysis, sarcoidesis. If subjects have already been treated with wrist splint or have previous carpal tunnel release surgery

Age

From **20 years** old to **40 years** old

Gender

Female

Phase

N/A

Groups that have been masked

- Outcome assessor

Sample size

Target sample size: **34**

Randomization (investigator's opinion)

Randomized

Randomization description

The sample size of study is 34. Participants will allocate in two treatment groups by simple random sampling using lottery method. We will make 100 chits, each with the name of a participant written on it. The chits are placed in a container of some kind, give a good shake, and 30 chits will picked. Those whose names on the chits will selected for the respective treatment.

Blinding (investigator's opinion)

Single blinded

Blinding description

The outcome asesser will not know which participant will allocated in group A or group B. So study will single blinded.

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

The institutional board of Rashid Latif Medical College, Lahore

Street address

35KM Ferozepur Road, Lahore.

City

Lahore

Postal code

54900

Approval date

2022-05-10, 1401/02/20

Ethics committee reference number

IRB/2022/051

Health conditions studied

1

Description of health condition studied

carpal tunnel syndrome

ICD-10 code

G56.0

ICD-10 code description

Carpal tunnel syndrome

Primary outcomes

1

Description

symptom severity and functional status

Timepoint

Before intervention and 4 weeks after intervention

Method of measurement

Boston Carpal Tunnel Score questionnaire

2

Description

Pain

Timepoint

Before intervention and 4 weeks after intervention

Method of measurement

Numeric pain rating scale will use to measure pain intensity

3

Description

Range of motion

Timepoint

Before treatment and 4 weeks after treatment

Method of measurement

Goniometer

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: nerve mobilization technique group,

group A will consist of 17 patients which will randomly allocate. Patients will treat with median nerve mobilization and heating pad. The patient will be in sitting position, therapist standing by side of patient to straighten the arm extend the wrist and apply passive pressure on the fingers. Repeat this procedure three times a day (3 sets 10 rep) and two times per week for four weeks. Assessment of patient's symptom will take before and after treatment.

Category

Treatment - Other

2

Description

Intervention group: active release technique group, group B will also be included 17 patients. Patients will treated with active release technique and heating pad.The patient may sit or lie supine and therapist stand in front or the patient or at the side respectively. The therapist thumb is placed on the medial and lateral attachment of the transverse carpel ligament. As the therapist fingers wrap around the dorsal surface of the wrist. The therapist exert the tension on the carpel region (especially the flexor retinaculum) by pressing the thumb into the volar surface of the base of the thumb and pushing the thumb apart. This position is held for 20-60 sec and then release. 3 set with 5 to 6 repetition will be performed, two times per week. The treatment will be given for 4 week. Assessment of patient's symptom will take before and after treatment.

Category

Treatment - Other

Recruitment centers

1

Recruitment center

Name of recruitment center
Arif memorial teaching hospital, Lahore
Full name of responsible person
Amna Batool
Street address
35-KM, Ferozepur Road. Lahore.
City
Lahore
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54900
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+92 321 1185253
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Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Rashid Latif Medical college
Full name of responsible person
Hafiza Nida Rasheed
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35-KM, Ferozepur Road. Lahore.
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Grant name

Grant code / Reference number

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

Yes

Title of funding source

Rashid Latif Medical college

Proportion provided by this source

100

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

Academic

Person responsible for general inquiries

Contact

Name of organization / entity
Rashid Latif Medical College
Full name of responsible person
Amna Batool
Position
Physical Therapist
Latest degree
Bachelor
Other areas of specialty/work
Physiotherapy
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Person responsible for scientific inquiries

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Person responsible for updating data

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Sharing plan

Deidentified Individual Participant Data Set (IPD)
Undecided - It is not yet known if there will be a plan to make this available
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
Undecided - It is not yet known if there will be 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