

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

10 Jun 2026

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

##### Public title

Effects of nerve mobilization and active release

technique in treatment of carpal 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, sarcoidosis. 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 be picked. Those whose names on the chits will be selected for the respective treatment.

### **Blinding (investigator's opinion)**

Single blinded

### **Blinding description**

The outcome assessor will not know which participant will be allocated in group A or group B. So the study will be 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 be used 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 carpal ligament. As the therapist fingers wrap around the dorsal surface of the wrist. The therapist exert the tension on the carpal 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  
**Postal code**  
54900  
**Phone**  
+92 321 1185253  
**Email**  
bamna8894@gmail.com

**Sponsors / Funding sources**

**1**

**Sponsor**

**Name of organization / entity**  
Rashid Latif Medical college  
**Full name of responsible person**

Hafiza Nida Rasheed  
**Street address**  
35-KM, Ferozepur Road. Lahore.  
**City**  
Lahore  
**Postal code**  
54900  
**Phone**  
+92 336 4535979  
**Email**  
naddia.rasheed20@gmail.com

**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  
**Street address**  
35-KM, Ferozepur Road. Lahore.  
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**Province**  
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**Person responsible for scientific inquiries**

**Contact**

**Name of organization / entity**  
Rashid Latif Medical College

**Full name of responsible person**

Hafiza Nida Rasheed

**Position**

Physical Therapist

**Latest degree**

Bachelor

**Other areas of specialty/work**

Physiotherapy

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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

**Person responsible for updating data****Contact****Name of organization / entity**

Rashid Latif Medical College

**Full name of responsible person**

Hafiza Nida Rasheed

**Position**

Physical Therapist

**Latest degree**

Bachelor

**Other areas of specialty/work**

Physiotherapy

**Street address**