Clinical Trial Protocol
Iranian Registry of Clinical Trials

10 Jun 2026

Comparative Effects of Neural slider technique and Neural Tensioner technique on wrist pain, function , and grip strength in pregnant women with Carpal Tunnel Syndrome

Protocol summary

Study aim

This study investigates the f Comparative Effects Of Neural Slider Technique And Neural Tensioner Technique On Wrist Pain, Function, And Grip Strength In Pregnant Women With Carpel Tunnel Syndrome

Design

Simple Random Sampling technique

Settings and conduct

Allied Hospital Faisalabad Madinah Teaching Hospital

Participants/Inclusion and exclusion criteria

INCLUSION Age 22-35 years Unilateral CTS females in third trimester of pregnancy Discomfort, tingling, or sensations of paraesthesia in the thumb, the index, the middle, and the radial half of ring finger VAS score (24-hour maximum pain): 4–7 cm at 10 cm VAS scale Positive Tinel’s sign Positive Phalen’s test EXCLUSION Undergone any form of conservative treatment within the last month Prior neurovascular surgery within the last six months pertaining to the same area of the body CTS as a result of a fracture of the upper extremity or trauma to the median nerve Undergone previous surgery for CTS Exhibit severe thenar muscle atrophy Psychosocial problems

Intervention groups

Using the inclusion criteria as a guide, patients will be evaluated for symptoms of carpal tunnel syndrome. A diagnosis will then be made after confirmation using phalen's test and tinel sign. Subjects who fulfil the requirements will be asked to sign a consent form. Participants will be randomly assigned to either Group A or Group B once they complete the consent form. In Group A neurodynamic slider technique will be given with tendon gliding exercises, while group B will receive neurodynamic tensioner technique with tendon gliding exercises for 3 weeks. Treatment sessions will be 9 sessions, 3 sessions per week on alternative days. Outcome measures will pain, assessment of functional status and hand grip.

Main outcome variables

• Wrist Pain • Functional status • Grip strength

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20240316061312N1**
Registration date: **2024-04-04, 1403/01/16**
Registration timing: **registered_while_recruiting**

Last update: **2024-04-04, 1403/01/16**
Update count: **0**

Registration date

2024-04-04, 1403/01/16

Registrant information

Name

NOOR Ul Sabah

Name of organization / entity

The University of Faislabad

Country

Pakistan

Phone

+92 41 87509715

Email address

2022-ms-pt-056@tuf.edu.pk

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2024-02-17, 1402/11/28

Expected recruitment end date

2024-03-09, 1402/12/19

Actual recruitment start date

2024-02-17, 1402/11/28

Actual recruitment end date

2024-04-09, 1403/01/21

Trial completion date

2024-04-11, 1403/01/23

Scientific title

Comparative Effects of Neural slider technique and Neural Tensioner technique on wrist pain, function , and grip strength in pregnant women with Carpal Tunnel Syndrome

Public title

Carpal Tunnel Syndrome, Neural Tensioner Technique and Neural Slider Technique in Pregnant Women

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Age 22-35 years Unilateral CTS females in third trimester of pregnancy Discomfort, tingling, or sensations of paraesthesia in the thumb, the index, the middle, and the radial half of ring finger VAS score (24-hour maximum pain): 4–7 cm at 10 cm VAS scale Positive Tinel’s sign Positive Phalen’s test Sleep disruption from hand pain Signed informed consent

Exclusion criteria:

Undergone any form of conservative treatment within the last month Prior neurovascular surgery within the last six months pertaining to the same area of the body Neurovascular pathologic conditions affecting the same area of the body other than CTS Systemic pathologies associated with CTS, such as hypothyroidism, rheumatoid arthritis, or diabetes mellitus Chronic pain conditions, such as myofascial pain syndrome or fibromyalgia which can manifest as hand-referred pain CTS as a result of a fracture of the upper extremity or trauma to the median nerve Undergone previous surgery for CTS Exhibit severe thenar muscle atrophy Psychosocial problems

Age

From **22 years** old to **35 years** old

Gender

Female

Phase

N/A

Groups that have been masked

- Outcome assessor

Sample size

Target sample size: **59**

Actual sample size reached: **66**

Randomization (investigator's opinion)

Randomized

Randomization description

non-probability consecutive sampling

Blinding (investigator's opinion)

Single blinded

Blinding description

single blinded study was conducted to minimize the chance of biaseness, this study was used to allocate the members in single groups. this description involve concealing details that could bias accessors when evaluating retrieval systems or algorithm. this ensures fair and unbiased evaluation of system's performance

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Research and Ethics / technical committee for the university of Faisalabad

Street address

Faisal Town, West Canal Road, Faisalabad, Punjab

City

Faisalabad

Postal code

38000

Approval date

2024-01-05, 1402/10/15

Ethics committee reference number

TUF/Addl Reg/SB/757

Health conditions studied

1

Description of health condition studied

Carpal tunnel syndrome

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

Wrist Pain

Timepoint

before intervention and 3 weeks after intervention

Method of measurement

Visual Analogue Scale

2

Description

Functional status

Timepoint

before intervention and 3 weeks after intervention

Method of measurement

Boston Carpal Tunnel Questionnaire (BCTQ)

Secondary outcomes

1

Description
Grip strength
Timepoint
before intervention and 3 weeks after intervention
Method of measurement
Hand-held dynamometer

Intervention groups

1

Description
Intervention group: Nerve tensioner neurodynamic technique In order to effectively address the affected distal extremity, we will carefully position it in six distinct and precise orientations. Begin by positioning subject wrist in a neutral position, ensuring your fingers and thumb are fully flexed. Next, will extend fingers and thumb completely. Will gradually introduce wrist extension. Follow this by extending your thumb as well. Maintain a supinated forearm position. Finally, gently apply a slight tension to thumb. Frequency: 5-10 repetitions for 3-5 sessions a day. Each position to be maintained for 5-7 seconds. The tensioner intervention was conducted in two sets, each lasting 5 minutes, with a 1-minute rest period between sets.
Category
Rehabilitation

2

Description
Intervention group: Nerve slider neurodynamic technique The nerve slider neurodynamic approach used in this investigation followed the sequence of shoulder girdle depression, glenohumeral abduction and lateral rotation, supination of the forearm, and extension of the wrist, thumb, and fingers. The individual will perform alternating dynamic movements of elbow flexion and wrist extension in this posture, followed by alternating movements of elbow extension and wrist flexion. The therapist varied the sequence of motions based on the level of resistance in the tissues. The speed and magnitude of the movement were modified to ensure that the procedure did not cause any discomfort. The slider intervention was conducted in two sets, each lasting 5 minutes, with a 1-minute rest period between sets, with frequency of 10 repetition.
Category
Rehabilitation

Recruitment centers

1

Recruitment center
Name of recruitment center
The University of Faisalabad
Full name of responsible person
Dr. Noor ul Sabah;PT
Street address
Faisal Town, West Canal Road, Faisalabad, Punjab
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Sponsors / Funding sources

1

Sponsor
Name of organization / entity
The University of Faisalabad
Full name of responsible person
Dr. Syed Saqlain Babar; PT
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Web page address
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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
The University of Faisalabad
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
The University of Faisalabad
Full name of responsible person
Dr. Zainab Boota;PT

Position
Clinical Consultant Physiotherapist
Latest degree
Master
Other areas of specialty/work
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Person responsible for scientific inquiries

Contact
Name of organization / entity
The University of Faisalabad
Full name of responsible person
Dr. Gulraiz Ayub; PT
Position
Clinical Consultant Physiotherapist
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Master
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Person responsible for updating data

Contact
Name of organization / entity
The University of Faisalabad
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Consultant Physiotherapist
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Master
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https://tuf.edu.pk/

Sharing plan

Deidentified Individual Participant Data Set (IPD)
Yes - There is a plan to make this available
Study Protocol
Yes - There is a plan to make this available
Statistical Analysis Plan
Yes - There is a plan to make this available
Informed Consent Form
Yes - There is a plan to make this available
Clinical Study Report
Yes - There is a plan to make this available
Analytic Code
No - There is not a plan to make this available
Data Dictionary
Yes - There is a plan to make this available
Title and more details about the data/document
comparative effects of neural slider technique and neural tensioner technique on wrist pain, function, and grip strength in pregnant women with carpal tunnel syndrome
When the data will become available and for how long
15 days after publication
To whom data/document is available
Google scholar
Under which criteria data/document could be used
Access to the data will be facilitated through a specified mechanism, such as a secure online portal or data sharing platform. Requests for access will be reviewed by a designated committee or entity responsible for ensuring that they meet the established criteria and comply with relevant regulations and guidelines. Additional supporting information and documents may be provided to assist requesters in understanding the available data and its potential applications.
From where data/document is obtainable
The University of Faisalabad 38000 https://tuf.edu.pk/ 00924187509715
What processes are involved for a request to access data/document
To receive the documents or data files, the process typically involves the following steps: 1. Request Initiation: The applicant submits a formal request specifying the documents or data files they need. 2. Verification and Authorization: The organization verifies the request and ensures that the applicant is authorized to access the requested documents or data files. This may involve confirming the identity of the requester and checking their permissions. 3. Processing Time: The

processing time varies depending on the complexity of the request, the volume of documents or data files, and any legal or regulatory requirements. It could range from a few hours to several weeks. 4. Document Retrieval or Data Extraction: Once the request is approved, the organization retrieves the documents from their archives or extracts the requested data from their databases. 5. Quality Assurance: Before releasing the documents or data files to the applicant, the organization may conduct quality checks to ensure accuracy and completeness. 6. Delivery: The documents or data files are delivered to the applicant through a secure channel, such as encrypted email, secure file transfer protocols, or a secure online portal. 7. Confirmation of Receipt: The applicant acknowledges receipt of the documents or data files, confirming that they have received the information they requested.

Comments