

Clinical Trial Protocol

Iranian Registry of Clinical Trials

27 Jul 2026

Evaluation of Amplitude, Velocity and Latency Period of Sensory Nerve Action Potential of Proximal Part of Medial Branch of Superficial Radial Nerve for Diagnosis of Cheiralgia Paresthetica in Patients vs Control: A Randomized Control Trial

Protocol summary

Study aim

To assess whether Amplitude, velocity and latency period of Proximal part of Medial Branch of Superficial Radial Nerve can be utilized clinically for diagnosis of cheiralgia paresthetica or not?

Design

Parallel group, double blind, randomised controlled trial

Settings and conduct

Out patient department (OPD) of PM&R Department of Combined Military Hospital Multan. Patients, Investigators, data entry staff, analyzers and statistician were blinded.

Participants/Inclusion and exclusion criteria

Inclusion Criteria: Intervention Group: All individuals with symptoms of peripheral neuropathy of superficial radial nerve. Control Group: All individuals without symptoms of peripheral neuropathy of superficial radial nerve. Exclusion criteria All individuals with history of stroke, diabetes mellitus, hypertension, brachial plexus plexopathy, cervical radiculopathy, spinal cord injury.

Intervention groups

Nerve conduction study (NCS) of proximal part of medial branch of superficial radial nerve of intervention and control group and calculating: 1. Amplitude of Sensory nerve action potential (SNAP) 2. Latency of Nerve Action Potential 3. Velocity of Nerve Action Potential

Main outcome variables

Amplitude, Velocity and Latency period of Sensory Nerve Action Potential (SNAP)

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20200814048399N1**

Registration date: **2020-09-01, 1399/06/11**

Registration timing: **prospective**

Last update: **2020-09-01, 1399/06/11**

Update count: **0**

Registration date

2020-09-01, 1399/06/11

Registrant information

Name

Muhammad Tawab Khalil

Name of organization / entity

Armed Forces Institute of Rehabilitation Medicine

Country

Pakistan

Phone

+92 51 5418692

Email address

tawabkhalil2013@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2020-10-10, 1399/07/19

Expected recruitment end date

2021-02-28, 1399/12/10

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Evaluation of Amplitude, Velocity and Latency Period of Sensory Nerve Action Potential of Proximal Part of Medial

Branch of Superficial Radial Nerve for Diagnosis of Cheiralgia Paresthetica in Patients vs Control: A Randomized Control Trial

Public title

Evaluation of Amplitude, Velocity and Latency Period of Sensory Nerve Action Potential of Proximal Part of Medial Branch of Superficial Radial Nerve for Diagnosis of Cheiralgia Paresthetica in Patients vs Control: A Randomized Control Trial

Purpose

Diagnostic

Inclusion/Exclusion criteria

Inclusion criteria:

Intervention Group: All individuals with symptoms of peripheral neuropathy of superficial radial nerve
Control Group: All individuals without symptoms of peripheral neuropathy of superficial radial nerve.

Exclusion criteria:

All individuals with history of stroke, diabetes mellitus, hypertension, brachial plexus plexopathy, cervical radiculopathy, spinal cord injury.

Age

No age limit

Gender

Both

Phase

N/A

Groups that have been masked

- Participant
- Investigator
- Outcome assessor
- Data analyser

Sample size

Target sample size: 26

Randomization (investigator's opinion)

N/A

Randomization description

Blinding (investigator's opinion)

Double blinded

Blinding description

Patients with abnormal and normal sensation on dorsum of the hand will be de-identified at the reception counter and will be given randomly generated numbers by the help of website (<https://www.random.org/>) in place of their names by the receptionist. They EMG / NCS will then be performed on these patients by a physician and Amplitude Velocity and Latency period of Sensory Nerve Action Potential (SNAP) will be written by hand on a separate paper with out mentioning the name or diagnosis of patient and enclosed in the envelop with number of patient mentioned outside the envelop. The reports of EMG/NCS will then be segregated into two groups viz Group-I (patients with abnormal sensation) and Group-II (Control) by a separate staff member. The data of patients in each group will then be uploaded by another staff member on SPSS who do not know which group is control and which is intervention group. After that, data sheet will then be analysed by separate statistician who will not be informed regarding which group is control and which is intervention group.

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

CMH Multan Ethical Review Committee

Street address

Combined Military Hospital Multan

City

Multan

Postal code

66000

Approval date

2020-06-08, 1399/03/19

Ethics committee reference number

cmh/erc/00161

Health conditions studied

1

Description of health condition studied

Cheiralgia Paresthetica

ICD-10 code

G56.30

ICD-10 code description

Lesion of radial nerve, unspecified upper limb

Primary outcomes

1

Description

Amplitude, Velocity and Latency period of Sensory Nerve Action Potential (SNAP)

Timepoint

At the time of recruitment

Method of measurement

Nerve Conduction Study of Proximal part of Medial branch of SRN will be done anti-dromically on the affected side of participants of group-I and on both sides of participants of group-II. Stimulation electrodes will be applied 10 cm proximal to radial styloid. Recording electrode will be placed at Anatomical snuff box while Reference electrode will be place at first metacarpophalangeal joint. Amplitude, Latency and Velocity of Sensory Nerve Action Potential(SNAP) will be recorded.

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group:

Category

Diagnosis

2

Description

Control group:

Category

Diagnosis

Recruitment centers

1

Recruitment center

Name of recruitment center

Combined Military Hospital Multan

Full name of responsible person

Muhammad Tawab Khalil

Street address

Combined Military Hospital Multan

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Combined Military Hospital Multan

Full name of responsible person

Ali Raza Qureshi

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tawabkhalil2013@gmail.com

Grant name

Grant code / Reference number

Is the source of funding the same sponsor

organization/entity?

No

Title of funding source

Combined Military Hospital Multan

Proportion provided by this source

1

Public or private sector

Public

Domestic or foreign origin

Domestic

Category of foreign source of funding

empty

Country of origin

Type of organization providing the funding

Other

Person responsible for general inquiries

Contact

Name of organization / entity

Armed Forces of Rehabilitation Medicine, Rawalpindi

Full name of responsible person

Muhammad Tawab Khalil

Position

Resident Physician

Latest degree

Medical doctor

Other areas of specialty/work

Physical Medicine and Rehabilitation

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Person responsible for scientific inquiries

Contact

Name of organization / entity

Armed Forces Institute of Rehabilitation Medicine

Full name of responsible person

Muhammad Tawab Khalil

Position

Doctor

Latest degree

Medical doctor

Other areas of specialty/work

Physical Medicine and Rehabilitation

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

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Position

Doctor

Latest degree

Medical doctor

Other areas of specialty/work

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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

No - There is not a plan to make this available

Clinical Study Report

No - There is not a plan to make this available

Analytic Code

No - There is not a plan to make this available

Data Dictionary

No - There is not a plan to make this available

Title and more details about the data/document

Individual participant data that underlie the results reported in this article after de-identification will be shared beginning 3 months and ending 5 years following article publication with researchers who provide a methodologically sound proposal to achieve the aims mentioned in the approved proposal. Proposals should be sent to tawabkhalil2013@gmail.com. To gain access data requestors will need to sign data access agreement.

When the data will become available and for how long

Beginning 3 months and ending 5 years following article publication with researchers who provide a methodologically sound proposal to achieve the aims mentioned in the approved proposal.

To whom data/document is available

Researchers who provide a methodologically sound proposal to achieve the aims mentioned in the approved proposal.

Under which criteria data/document could be used

For personal use only.

From where data/document is obtainable

Proposals of request to access the data should be sent to tawabkhalil2013@gmail.com. To gain access data requestors will need to sign data access agreement.

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

Proposals of request to access the data should be sent to tawabkhalil2013@gmail.com. To gain access data requestors will need to sign data access agreement.

Comments