Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 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 asses 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 Deparment 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
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Pakistan
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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 Comittee

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 metacarpophalayngeal 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
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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)
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 tawabkhallil2013@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 tawabkhallil2013@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 tawabkhallil2013@gmail.com. To gain access data requestors will need to sign data access agreement.
Comments