

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

10 Jun 2026

### Evaluation of the effectiveness of Ultrasound-Guided Steroid Injection In one wrist in patients with bilateral carpal tunnel syndrome at opposite Injection side

#### Protocol summary

##### Study aim

Title: Results Survey of Ultrasound-Guided Steroid Injection In one wrist in patients with bilateral carpal tunnel syndrome at opposite Injection side

##### Design

Patients with CTS are injected with triamcinolone and lidocaine locally in one wrist (dominant hand)

##### Settings and conduct

physical medicine and rehabilitation clinic of Baqiyaallah

##### Participants/Inclusion and exclusion criteria

Inclusion criteria: 30-60 male or female patients with a final diagnosis of bilateral carpal tunnel syndrome with moderate intensity and pain or paresthesia in the hand. Exclusion criteria: 1- Patients with severe carpal tunnel syndrome or severe dysfunction of the hand that requires release of the median nerve through surgery. 2- Patients who suffer from neuropathy, radiculopathy and median nerve damage, as well as patients who suffer from brachial plexopathy, radial and ulnar neuropathy, fractures in the upper limb, burns in the upper limb and any type of nerve lesion in the upper limb. 3- Patients who undergo hand surgery. 4- Patients who are allergic to steroids and lidocaine. 5- Patients who do not cooperate to follow up after injection. 6- Patients who have a history of trauma or upper limb burns.

##### Intervention groups

30 Patients with Moderate CTS Bilateral diagnosed by EDX test, the combination of triamcinolone and lidocaine including 1 cc of triamcinolone 40 mg and 1 cc of 2% lidocaine is injected locally in one wrist (dominant hand) (the hand that has been injected), then For all patients, a medical wrist brace with a splint (Cock up) is prescribed for the dominant hand (the hand that has been injected) for one month.

##### Main outcome variables

carpal tunnel syndrome

#### General information

##### Reason for update

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT20230108057078N1**

Registration date: **2023-03-31, 1402/01/11**

Registration timing: **prospective**

Last update: **2023-03-31, 1402/01/11**

Update count: **0**

##### Registration date

2023-03-31, 1402/01/11

##### Registrant information

##### Name

Sattar Najafi

##### Name of organization / entity

##### Country

Iran (Islamic Republic of)

##### Phone

+98 74 3344 3619

##### Email address

sattarn2a@gmail.com

##### Recruitment status

**Recruitment complete**

##### Funding source

##### Expected recruitment start date

2023-04-04, 1402/01/15

##### Expected recruitment end date

2023-10-07, 1402/07/15

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

## Scientific title

Evaluation of the effectiveness of Ultrasound-Guided Steroid Injection In one wrist in patients with bilateral carpal tunnel syndrome at opposite Injection side

## Public title

Evaluation of the effectiveness of Ultrasound-Guided Steroid Injection In one wrist in patients with bilateral carpal tunnel syndrome at opposite Injection side

## Purpose

Treatment

## Inclusion/Exclusion criteria

### Inclusion criteria:

Patients With Bilateral Moderate Carpal Tunnel Syndrome Suffering From Hands Pain & Paresthesia No History Of Local Steroid Injection & Surgery No Underlying Disorders Such As Diabetes mellitus (DM), Thyroid Disorders & Rheumatoid Arthritis Within Range Of 30 To 60 Years Of Age Without Any Gender Limitation

### Exclusion criteria:

## Age

From **30 years** old to **60 years** old

## Gender

Both

## Phase

N/A

## Groups that have been masked

*No information*

## Sample size

Target sample size: **30**

## Randomization (investigator's opinion)

N/A

## Randomization description

## Blinding (investigator's opinion)

Not blinded

## Blinding description

## Placebo

Not used

## Assignment

Single

## Other design features

## Secondary Ids

empty

## Ethics committees

### 1

#### Ethics committee

##### Name of ethics committee

Ethics committee of Baqiyatallah University of Medical Sciences

##### Street address

Sheikh Bahai - Mulla Sadra St. Vanak Square.Tehran

##### City

tehran

##### Province

Tehran

##### Postal code

##### Approval date

2022-07-16, 1401/04/25

## Ethics committee reference number

IR.BMSU.BAQ.REC:1401.031

## Health conditions studied

### 1

#### Description of health condition studied

Bilateral carpal tunnel syndrome

#### ICD-10 code

G56.0

#### ICD-10 code description

Carpal tunnel syndrome

## Primary outcomes

### 1

#### Description

Bilateral carpal tunnel syndrome

#### Timepoint

before the start of the intervention and 30 days after local steroid injection

#### Method of measurement

EDX

## Secondary outcomes

empty

## Intervention groups

### 1

#### Description

Intervention group: 30 patients with moderate bilateral CTS diagnosed by EDX test, the combination of triamcinolone and lidocaine including 1 cc of triamcinolone 40 mg and 1 cc of lidocaine 2% is injected locally in one wrist (dominant hand). The above-mentioned injections will be performed under ultrasound guide by hydrodissection of the Median nerve. Then, for one month, a medical wrist brace with a splint (Cock up) is prescribed for the dominant hand for all patients And then clinical symptoms (through the Boston questionnaire) and electrophysiological findings including NCV, SNAP Latency, CMAP Latency of the median nerve of the opposite hand are checked and recorded one month after the treatment.

#### Category

Treatment - Drugs

## Recruitment centers

### 1

#### Recruitment center

##### Name of recruitment center

Baqiyatallah Hospital, Tehran

##### Full name of responsible person

Seyyed Ebrahim Hashemi

**Street address**

Baqiyatullah-ul-Azam Hospital ,Mollasadra St, Vanak Square, Tehran

**City**

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**Postal code**

141556437

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+98 21 8805 0435

**Email**

bag@bmsu.com

**Web page address**

## Sponsors / Funding sources

### 1

#### Sponsor

**Name of organization / entity**

Bagheiat-allah University of Medical Sciences

**Full name of responsible person**

Seyyed Ebrahim Hashemi

**Street address**

Baqiyatallah University of Medical Sciences, South Sheikh Bahai St,Mollasadra St, ,Venk Square,

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1435916471

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+98 21 8755 0000

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pr@bmsu.ac.ir

**Grant name**

**Grant code / Reference number**

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

Yes

**Title of funding source**

Bagheiat-allah University of Medical Sciences

**Proportion provided by this source**

100

**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**

Academic

## Person responsible for general inquiries

#### Contact

**Name of organization / entity**

Bagheiat-allah University of Medical Sciences

#### Full name of responsible person

Satar Najafi

**Position**

Assistant professor

**Latest degree**

Medical doctor

**Other areas of specialty/work**

Physical Medicine

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## Person responsible for scientific inquiries

#### Contact

**Name of organization / entity**

Bagheiat-allah University of Medical Sciences

**Full name of responsible person**

Satar najafi

**Position**

Assistant professor

**Latest degree**

Medical doctor

**Other areas of specialty/work**

Physical Medicine

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## Person responsible for updating data

#### Contact

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Bagheiat-allah University of Medical Sciences

**Full name of responsible person**

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141556437

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**Email**

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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