# Clinical Trial Protocol
# Iranian Registry of Clinical Trials

22 Nov 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 Baqiyallah

**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 Madin 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

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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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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

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## Person responsible for updating data

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**Name of organization / entity**
Bagheiat-allah University of Medical Sciences

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Satar najafi

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Assistant professor

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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