Clinical Trial Protocol
Iranian Registry of Clinical Trials

17 Sep 2026

Comparison of the Supine and Lateral Position in Microvascular Decompression of Trigeminal Neuralgia

Protocol summary

Study aim

Comparing the Supine and Lateral Position in Microvascular Decompression of Trigeminal Neuralgia

Design

In this clinical trial, a total of 28 patients in two groups of 14-patient (supine position group and lateral position group) are evaluated in parallel without the control group, in a single blinded and randomized study. For randomization and selection of patients for the two groups, the letters S (for supine) and the letter L (for lateral) were placed in a bag. The neurosurgeon removes one of the papers before admitting the patient, thus selecting the surgical site and the patient group was done. Patients are unaware of the surgical location and the study is a single blinded study.

Settings and conduct

In this study, patients with typical trigeminal neuralgia in two groups (supine and lateral position) underwent Microvascular Decompression (MVD) in Sina Hospital of Tehran, Iran.

Participants/Inclusion and exclusion criteria

Inclusion criteria: definite diagnosis of typical trigeminal neuralgia who candidate of MVD and age more than 18 years old, . Exclusion criteria: pregnancy, multiple sclerosis, diabetic mellitus, extra-cranial masses that put pressure on the trigeminal nerve, intra-cerebral lesions in the thalamus or trigeminal brain stem pathway, history of posterior fossa surgery, history of psychiatric illnesses such as psychosis and cognitive disorders, Patients with contraindications to MRI, People unable to express their problems, such as people with verbal disorders, history of stroke or partial body and face paresis

Intervention groups

Individuals are divided into two groups, one group undergoing surgery in the supine position and the other group in the lateral position.

Main outcome variables

Time of surgery, perioperative blood loss, Superior Petrosal Vein (SPV) ligation, application of brain retractor, complication, and cervical and facial pain

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20211127053187N1**
Registration date: **2021-12-01, 1400/09/10**
Registration timing: **registered_while_recruiting**

Last update: **2021-12-01, 1400/09/10**
Update count: **0**

Registration date

2021-12-01, 1400/09/10

Registrant information

Name

Hannan Ebrahimi

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 21 6312 0000

Email address

ebrahimi-h@razi.tums.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2021-11-27, 1400/09/06

Expected recruitment end date

2022-01-20, 1400/10/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title
Comparison of the Supine and Lateral Position in Microvascular Decompression of Trigeminal Neuralgia

Public title
Position in Microvascular Decompression of Trigeminal Neuralgia
Purpose
Treatment
Inclusion/Exclusion criteria
Inclusion criteria:
definite diagnosis of typical trigeminal neuralgia who candidate of MVD
Exclusion criteria:
pregnancy multiple sclerosis diabetic mellitus extra-cranial masses that put pressure on the trigeminal nerve intra-cerebral lesions in the thalamus or trigeminal brain stem pathway history of posterior fossa surgery history of psychiatric illnesses such as psychosis and cognitive disorders Patients who had contraindications to MRI People who are unable to express their problems, such as people with verbal disorders history of stroke or partial body and face paresis
Age
From **18 years** old
Gender
Both

Phase
N/A
Groups that have been masked

- Participant

Sample size
Target sample size: **28**
Randomization (investigator's opinion)
Randomized
Randomization description
To select patients for the two groups, letters S (for Supine) and letters L (for Lateral) were placed in a bag. The neurosurgeon removes one of the papers before patient admission and thus the position of surgery was selected
Blinding (investigator's opinion)
Single blinded
Blinding description
Only Patients do not know the type of position during surgery. The neurosurgeon should be aware of the type of position before starting surgery and consider standard arrangements.
Placebo
Not used
Assignment
Parallel
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Ethics committee of Tehran University of Medical Sciences
Street address
Hasan-Abad Square
City
Tehran
Province
Tehran
Postal code
1136746911
Approval date
2021-07-27, 1400/05/05
Ethics committee reference number
IR.TUMS.SINAHOSPITAL.REC.1400.059

Health conditions studied

1

Description of health condition studied
trigeminal neuralgia
ICD-10 code
G50.0
ICD-10 code description
Trigeminal neuralgia

Primary outcomes

1

Description
post operation complication
Timepoint
after surgery
Method of measurement
according to the findings after surgery in the next examination

2

Description
intraoperation blood loss
Timepoint
intraoperation time
Method of measurement
according to intraoperation

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group 1: patients with trigeminal neuralgia underwent Microvascular Decompression (MVD) in supine position. In this procedure, the patient is placed supine on the operating table and a roll is placed under the shoulder on the surgical side.The head is rotated 45 degrees contralaterally. Surgery is performed with a retrosigmoid incision.

Category

Treatment - Surgery

2

Description

Intervention group 2: patients with trigeminal neuralgia underwent Microvascular Decompression (MVD) in lateral position. In this method, the patient is placed laterally on the operating table and the surgical side is placed on top.The head is parallel to the ground. Surgery is performed with a retrosigmoid incision.

Category

Treatment - Surgery

Recruitment centers

1

Recruitment center

Name of recruitment center

Sina Hospital of Tehran, Iran

Full name of responsible person

Hannan Ebrahimi

Street address

HasanAbad Square

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Province

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Phone

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ebrahimi.hannan@gmail.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Tehran University of Medical Sciences

Full name of responsible person

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Email

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Grant name

Grant code / Reference number

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

No

Title of funding source

nothing

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

Tehran University of Medical Sciences

Full name of responsible person

Hannan Ebrahimi

Position

Chief Resident

Latest degree

Medical doctor

Other areas of specialty/work

Neurosurgery

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Person responsible for scientific inquiries

Contact

Name of organization / entity

Tehran University of Medical Sciences

Full name of responsible person

Hannan Ebrahimi

Position

Chief Resident

Latest degree

Medical doctor

Other areas of specialty/work

Neurosurgery

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Person responsible for updating data

Contact
Name of organization / entity
Tehran University of Medical Sciences
Full name of responsible person
Hannan Ebrahimi
Position
Chief Resident
Latest degree
Medical doctor
Other areas of specialty/work
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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
Yes - There is 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
Title and more details about the data/document
All information obtained from the patient as well as the patient's name will remain confidential. The research results will be published in general and in the form of information of the study group, and individual results will be provided, if necessary, without mentioning the name and personal details.
When the data will become available and for how long
every time after finishing the research
To whom data/document is available
the design neurosurgeon
Under which criteria data/document could be used
The research results will be published in general and in the form of information of the study group, and individual results will be provided, if necessary, without mentioning the name and personal details.
From where data/document is obtainable
the design neurosurgeon
What processes are involved for a request to access data/document
The research results will be published in general and in the form of information of the study group, and individual results will be provided, if necessary, without mentioning the name and personal details.
Comments