

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

29 Jun 2026

### Comparison of the vestibulo-ocular reflex in patients with posterior semicircular canal benign paroxysmal positional vertigo before and after rehabilitation treatment assessed by video head impulse test

#### Protocol summary

##### Summary

(1) Objectives: to evaluate vestibulo-ocular reflex in each semicircular canal in patients with posterior semicircular canal benign paroxysmal positional vertigo (PSC-BPPV) before and after rehabilitation maneuver, (2) Design: non-randomized clinical trial, (3) Setting: Vertigo Rehabilitation Clinic, Audiology Department, Tehran University of Medical Sciences, Iran, (4) Participants: thirty patients with PSC-BPPV, (5) Method: measurement of vestibulo-ocular reflex (VOR) by vHIT in patients before and after Epley maneuver, (6) Intervention: Epley maneuver, (7) Main outcomes: VOR gain, gain asymmetry, saccades.

#### General information

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT2016013126279N1**

Registration date: **2016-04-26, 1395/02/07**

Registration timing: **registered\_while\_recruiting**

Last update:

Update count: **0**

##### Registration date

2016-04-26, 1395/02/07

##### Registrant information

###### Name

Mansoureh Adel Ghahraman

###### Name of organization / entity

###### Country

Iran (Islamic Republic of)

###### Phone

+98 21 7753 4364

###### Email address

madel@tums.ac.ir

##### Recruitment status

**Recruitment complete**

##### Funding source

Tehran University of Medical Sciences (TUMS)

##### Expected recruitment start date

2016-01-21, 1394/11/01

##### Expected recruitment end date

2016-06-20, 1395/03/31

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

Comparison of the vestibulo-ocular reflex in patients with posterior semicircular canal benign paroxysmal positional vertigo before and after rehabilitation treatment assessed by video head impulse test

##### Public title

Effects of rehabilitation treatment on vestibulo-ocular reflex

##### Purpose

Treatment

##### Inclusion/Exclusion criteria

Inclusion criteria: posterior semicircular canal benign paroxysmal positional vertigo; no other vestibular disorders; no cervical problem; no peripheral disorder in the right eye. Exclusion criteria: reluctant to cooperation during treatment sessions; no vertigo release after second rehabilitation session; occurrence of other vestibular disorders during study; feeling pain in cervical area during vHIT; nausea or vomiting during vHIT.

##### Age

No age limit

##### Gender

Both

**Phase**

N/A

**Groups that have been masked**

No information

**Sample size**

Target sample size: 30

**Randomization (investigator's opinion)**

Not randomized

**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**

Tehran University of Medical Sciences (TUMS)

**Street address**

Enqelab Ave.

**City**

Tehran

**Postal code****Approval date**

2015-11-22, 1394/09/01

**Ethics committee reference number**

IR.TUMS.REC.1394.1210

**Health conditions studied****1****Description of health condition studied**

Benign paroxysmal positional vertigo

**ICD-10 code**

H81.1

**ICD-10 code description**

Benign paroxysmal vertigo

**Primary outcomes****1****Description**

mean vestibulo-ocular reflex gain in each semicircular canal

**Timepoint**

before and after treatment

**Method of measurement**

ICS impulse (GN Otometrics, USA)

**2****Description**

Covert saccades

**Timepoint**

before and after treatment

**Method of measurement**

ICS impulse (GN Otometrics, USA)

**3****Description**

Overt saccades

**Timepoint**

before and after treatment

**Method of measurement**

ICS impulse (GN Otometrics, USA)

**4****Description**

gain symmetry

**Timepoint**

before and after treatment

**Method of measurement**

calculation

**Secondary outcomes**

empty

**Intervention groups****1****Description**

With the patient sitting upright, the head is turned 45 degrees to the patient's affected side. The patient is then moved from the sitting position to the supine position with the head hanging below the top end of the examination table at an angle of 20 degrees. The head is turned 90 degrees toward the unaffected left side. The head is then turned another 90 degrees, to a face-down position, and the trunk is turned 90 degrees in the same direction, so that the patient is lying on the unaffected side. The patient is then moved to the sitting position. Each position should be maintained until the induced nystagmus and vertigo resolve, but always for a minimum of 30 seconds. The rehabilitation procedure is performed in maximum two sessions (with one week interval).

**Category**

Rehabilitation

**Recruitment centers****1****Recruitment center****Name of recruitment center**

Vestibular assessment clinic, School of Rehabilitation, Tehran University of Medical Sciences (TUMS)

**Full name of responsible person**

**Street address**

**City**

Tehran

## Sponsors / Funding sources

1

### Sponsor

**Name of organization / entity**

Tehran University of Medical Sciences (TUMS)

**Full name of responsible person**

Shabnam Noroozadeh

**Street address**

Tehran University of Medical Sciences (TUMS)

**City**

Tehran

**Grant name**

**Grant code / Reference number**

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

Yes

**Title of funding source**

Tehran University of Medical Sciences (TUMS)

**Proportion provided by this source**

100

**Public or private sector**

*empty*

**Domestic or foreign origin**

*empty*

**Category of foreign source of funding**

*empty*

**Country of origin**

**Type of organization providing the funding**

*empty*

## Person responsible for general inquiries

### Contact

**Name of organization / entity**

Tehran University of Medical Sciences (TUMS)

**Full name of responsible person**

Mansoureh Adel Ghahraman

**Position**

PhD/ Faculty member

**Other areas of specialty/work**

**Street address**

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## Person responsible for scientific

## inquiries

### Contact

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## Sharing plan

**Deidentified Individual Participant Data Set (IPD)**

*empty*

**Study Protocol**

*empty*

**Statistical Analysis Plan**

*empty*

**Informed Consent Form**

*empty*

**Clinical Study Report**

*empty*

**Analytic Code**

*empty*

**Data Dictionary**

*empty*