# Clinical Trial Protocol
# Iranian Registry of Clinical Trials

30 Oct 2026

## Comparative study the effect of “phacoemulsification and viscogoniosynechialysis (VGSL)” with “phacoemulsification and viscogoniosynechialysis and goniotomy” in patients with primary angle closure glaucoma (PACG).

## Protocol summary

**Study aim**
Comparative study the effect of “phacoemulsification and viscogoniosynechialysis (VGSL)” with “phacoemulsification and viscogoniosynechialysis and goniotomy” in patients with primary angle closure glaucoma (PACG)

**Design**
Clinical trial with control group, single-blind, was performed in a sample of 63 eyes

**Settings and conduct**
In Khatam-ol-Anbia hospital, patients underwent “Phacoemulsification + VGSL” and the intervention group underwent “Phacoemulsification + VGSL + Goniotomy” which patients and researcher were single blinded .

**Participants/Inclusion and exclusion criteria**
patients with angle closure glaucoma as candidate for surgery with a maximum Cup to Disc Ratio (CDR) of 80% and absence of Peripheral Anterior Synechiae (PAS) in nasal quadrant

**Intervention groups**
In the Intervention group, the patients underwent “Phacoemulsification + viscogoniosynechialysis (VGSL) + Goniotomy” and in the control group “Phacoemulsification + viscogoniosynechialysis

**Main outcome variables**
the Optical coherence tomography (OCT) criteria, number of drugs used to control glaucoma and Intra Ocular Pressure (IOP)

## General information

**Reason for update**

**Acronym**

**IRCT registration information**
IRCT registration number: **IRCT20181017041367N1**
Registration date: **2019-02-15, 1397/11/26**
Registration timing: **retrospective**

Last update: **2019-02-15, 1397/11/26**
Update count: **0**

**Registration date**
2019-02-15, 1397/11/26

**Registrant information**

**Name**
Saeed Shokoohi Rad

**Name of organization / entity**

**Country**
Iran (Islamic Republic of)

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+98 51 3728 5290

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**Recruitment status**
**Recruitment complete**

**Funding source**

**Expected recruitment start date**
2018-01-21, 1396/11/01

**Expected recruitment end date**
2018-04-21, 1397/02/01

**Actual recruitment start date**
2018-01-25, 1396/11/05

**Actual recruitment end date**
2018-03-06, 1396/12/15

**Trial completion date**
2018-09-07, 1397/06/16

**Scientific title**
Comparative study the effect of “phacoemulsification and viscogoniosynechialysis (VGSL)” with “phacoemulsification and viscogoniosynechialysis and

goniotomy” in patients with primary angle closure glaucoma (PACG).

**Public title**
The effect of goniotomy on primary angle closure glaucoma
**Purpose**
Treatment
**Inclusion/Exclusion criteria**
**Inclusion criteria:**
primary angle closure glaucoma as candidate for surgery
**Exclusion criteria:**
absence of Peripheral Anterior Synechiae (PAS) in nasal quadrant maximum Cup to Disc Ratio (CDR) of 80%
**Age**
No age limit
**Gender**
Both

**Phase**
N/A
**Groups that have been masked**

- Participant

**Sample size**
Target sample size: **70**
Actual sample size reached: **63**
**Randomization (investigator's opinion)**
Randomized
**Randomization description**
Simple randomization
**Blinding (investigator's opinion)**
Single blinded
**Blinding description**
Participants were blinded to the project so that they were unaware of their surgery group
**Placebo**
Not used
**Assignment**
Parallel
**Other design features**

## Secondary Ids

empty

## Ethics committees

### 1

**Ethics committee**
**Name of ethics committee**
Ethics committee of Mashhad University of Medical Sciences
**Street address**
Khatam Al Anbia Hospital , Shahid Gharani Boulevard , Abutaleb Crossing , Mashhad Town
**City**
Mashhad
**Province**
Razavi Khorasan
**Postal code**
9195965919
**Approval date**
2017-12-24, 1396/10/03
**Ethics committee reference number**
IR.MUMS.fm.REC.1396.103

## Health conditions studied

### 1

**Description of health condition studied**
primary angle closure glaucoma
**ICD-10 code**
H40.2
**ICD-10 code description**
Primary angle-closure glaucoma

## Primary outcomes

### 1

**Description**
Intra Ocular Pressure (IOP)
**Timepoint**
Before surgery, one week, one month, three months and six months later
**Method of measurement**
Goldman tonometer

### 2

**Description**
antiglaucoma medication
**Timepoint**
Before surgery, one week, one month, three months and six months later
**Method of measurement**
questionnaire

### 3

**Description**
Optical coherence tomography (OCT) parameter
**Timepoint**
Before surgery, one week, one month, three months and six months later
**Method of measurement**
CASIA-1

## Secondary outcomes

### 1

**Description**
**Timepoint**
**Method of measurement**

### 2

**Description**
antiglaucoma medication
**Timepoint**
Before surgery, one week, one month, three months and

six months later

**Method of measurement**

questionnaire

**3**

**Description**

Optical coherence tomography (OCT) parameter

**Timepoint**

Before surgery, one week, one month, three months and six months later

**Method of measurement**

CASIA-1

## Intervention groups

**1**

**Description**

Intervention group: “Phacoemulsification + Viscogoniosynechialysis + Goniotomy” surgery

**Category**

Treatment - Surgery

**2**

**Description**

Control group: “Phacoemulsification + Viscogoniosynechialysis” surgery

**Category**

Treatment - Surgery

## Recruitment centers

**1**

**Recruitment center**

**Name of recruitment center**

Khatam al anbia hospital

**Full name of responsible person**

Saeed Shokoohi Rad

**Street address**

Khatam Al Anbia Hospital , Abutaleb Crossing, Shahid Gharani Boulevard, Mashhad Town

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**Phone**

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**Email**

shokoohirads@gmail.com

**Web page address**

http://khatam.mums.ac.ir/

## Sponsors / Funding sources

**1**

**Sponsor**

**Name of organization / entity**

Mashhad University of Medical Sciences

**Full name of responsible person**

Mohsen Tafaghodi

**Street address**

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**Grant name**

**Grant code / Reference number**

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

Yes

**Title of funding source**

Mashhad 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**

Mashhad University of Medical Sciences

**Full name of responsible person**

Saeed Shokoohi Rad

**Position**

Assistant Professor

**Latest degree**

Subspecialist

**Other areas of specialty/work**

Ophthalmology

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## Person responsible for scientific inquiries

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## Person responsible for updating data

**Contact**

**Name of organization / entity**
Mashhad University of Medical Sciences

**Full name of responsible person**
Alireza Mojarrad Sani Oghaz

**Position**
Intern

**Latest degree**
Medical doctor

**Other areas of specialty/work**
Ophthalmology

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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