Clinical Trial Protocol
Iranian Registry of Clinical Trials

16 Sep 2026

Effect of YAG capsulotomy on anterior segment parameters and lenticular astigmatism in pseudophakic patients with posterior capsule opacity: a before-after clinical trial

Protocol summary

Study aim
To assess the effect of YAG capsulotomy on anterior segment parameters and lenticular astigmatism in pseudophakic patients with posterior capsule opacity

Design
This is a before-after clinical trial in which 26 eligible patients will be recruited.

Settings and conduct
The eligible patients with posterior capsule opacity who will refer to Sina Hospital in Hamadan City during the study period will be enrolled in this before-after trial.

Participants/Inclusion and exclusion criteria
Inclusion criteria: Age of 18 to 75 years Posterior capsule opacity Visual impairment Indication of Laser TAG capsulotomy Exclusion criteria: History of cataract complicated surgery Diabetes Other eye diseases The history of eye trauma Intensive nystagmus Mental retardation

Intervention groups
Intervention group: Surgery of cataract and lens adjustment using laser YAG capsulotomy Control group: In comparison with before intervention

Main outcome variables
Refractive errors; depth of the anterior chamber; volume of the anterior chamber; size of the cornea b; pupil size

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20120215009014N288**
Registration date: **2019-07-07, 1398/04/16**
Registration timing: **retrospective**

Last update: **2019-07-07, 1398/04/16**
Update count: **0**

Registration date
2019-07-07, 1398/04/16

Registrant information

Name
Jalal Poorolajal

Name of organization / entity
Department of Epidemiology & Biostatistics Hamadan University of Medical Sciences

Country
Iran (Islamic Republic of)

Phone
+98 81 1838 0090

Email address
poorolajal@umsha.ac.ir

Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2019-04-21, 1398/02/01

Expected recruitment end date
2019-06-22, 1398/04/01

Actual recruitment start date
empty

Actual recruitment end date
empty

Trial completion date
empty

Scientific title
Effect of YAG capsulotomy on anterior segment parameters and lenticular astigmatism in pseudophakic patients with posterior capsule opacity: a before-after clinical trial

Public title
Effect of YAG capsulotomy on anterior segment parameters and lenticular astigmatism in pseudophakic

patients with posterior capsule opacity

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Age of 18 to 75 years Posterior capsule opacity Visual impairment Indication of Laser TAG capsulotomy

Exclusion criteria:

History of cataract complicated surgery Diabetes Other eye diseases The history of eye trauma Intensive nystagmus Mental retardation

Age

From **18 years** old to **75 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **26**

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 Hamadan University of Medical Sciences

Street address

Vice-chancellor for Research and Technology, Hamadan University of Medical Sciences, Shahid Fahmideh Ave

City

Hamadan

Province

Hamadan

Postal code

6517838695

Approval date

2019-04-13, 1398/01/24

Ethics committee reference number

IR.UMSHA.REC.1398.050

Health conditions studied

1

Description of health condition studied

Cataract

ICD-10 code

H25

ICD-10 code description

Age-related cataract

Primary outcomes

1

Description

Comparison of the refractive errors

Timepoint

Before the intervention and 3 months later

Method of measurement

By clinical examination

2

Description

Comparison of the depth of the anterior chamber

Timepoint

Before the intervention and 3 months later

Method of measurement

By clinical examination

3

Description

Comparison of the volume of the anterior chamber

Timepoint

Before the intervention and 3 months later

Method of measurement

By clinical examination

4

Description

Comparison of the size of the cornea

Timepoint

Before the intervention and 3 months later

Method of measurement

By clinical examination

5

Description

Comparison of the pupil size

Timepoint

Before the intervention and 3 months later

Method of measurement

By clinical examination

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group: Surgery of cataract and lens adjustment using laser YAG capsulotomy
Category
Treatment - Surgery

Recruitment centers

1

Recruitment center
Name of recruitment center
Sina Hospital in Hamadan City
Full name of responsible person
Milad Molaii
Street address
Sina Hospital, Mirzadeh Eshghi Ave.
City
Hamadan
Province
Hamadan
Postal code
6517838695
Phone
+98 81 3827 4184
Email
molaiimilad@yahoo.com

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Hamedan University of Medical Sciences
Full name of responsible person
Dr Saeid Bashirian
Street address
Hamadan University of Medical Sciences, Shahid Fahmideh Ave
City
Hamadan
Province
Hamadan
Postal code
6517838695
Phone
+98 81 3838 0717
Email
info.research@umsha.ac.ir
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Hamedan 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
Hamedan University of Medical Sciences
Full name of responsible person
Milad Molaii
Position
Medical Student
Latest degree
Medical doctor
Other areas of specialty/work
Ophthalmology
Street address
Sina Hospital, Mirzadeh Eshghi Ave.
City
Hamadan
Province
Hamadan
Postal code
6517838695
Phone
+98 81 3827 4184
Email
molaiimilad@yahoo.com

Person responsible for scientific inquiries

Contact
Name of organization / entity
Hamedan University of Medical Sciences
Full name of responsible person
Dr. Mahdi Alizadeh
Position
Ophthalmologist
Latest degree
Medical doctor
Other areas of specialty/work
Ophthalmology
Street address
Sina Hospital, Mirzadeh Eshghi Ave.
City
Hamadan
Province
Hamadan
Postal code
6517838695
Phone
+98 81 3827 4184
Email

mahaliz@yahoo.com

Person responsible for updating data

Contact

Name of organization / entity
Hamedan University of Medical Sciences

Full name of responsible person
Dr Jalal Poorolajal

Position
Professor of Epidemiology

Latest degree
Ph.D.

Other areas of specialty/work
Epidemiology

Street address
School of Public Health, Hamadan University of Medical Sciences, Shahid Fahmideh Ave

City
Hamadan

Province
Hamadan

Postal code
6517838695

Phone
+98 81 3838 0090

Email
poorolajal@umsha.ac.ir

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