

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

30 Jun 2026

### Corneal astigmatism & wavefront aberration changes after cataract surgery: single clear corneal incision versus paired opposite clear corneal incisions

#### Protocol summary

##### Summary

Objective: Comparison between effects of single clear corneal incision and paired opposite clear corneal incisions on corneal astigmatism and aberrations after cataract surgery based on wavefront analysis in patients with astigmatism. Key inclusion and exclusion criteria: patients requiring cataract surgery, which is equal to or greater than 1.5 diopters of astigmatism. Preoperative have entered into this study. Any patients with corneal disease such as corneal scar, pterygium, history of corneal surgery for any reason and peri operative complications should be excluded. Study population: patients with cataract referred to Feiz Hospital, Isfahan, and astigmatism are more than 1.5 diopters. Sample size: 50 patients (25 patients in each group). Intervention Study: Patients are randomly assigned in two groups: single clear corneal incision and paired opposite clear corneal incisions. Standard cataract surgery with these incisions will be done. Time: MARCH 2011-JAN 2013; Feiz hospital, Isfahan, Iran. Primary outcome: keratometric astigmatism and optical aberrations.

#### General information

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT2013031712833N1**  
Registration date: **2013-04-21, 1392/02/01**  
Registration timing: **retrospective**

Last update:

Update count: **0**

##### Registration date

2013-04-21, 1392/02/01

##### Registrant information

##### Name

Nima Koosha

##### Name of organization / entity

Isfahan University Of Medical Sciences

##### Country

Iran (Islamic Republic of)

##### Phone

+98 31 1776 8475

##### Email address

koosha@resident.mui.ac.ir

##### Recruitment status

**Recruitment complete**

##### Funding source

Isfahan University Of Medical Sciences

##### Expected recruitment start date

2011-03-20, 1389/12/29

##### Expected recruitment end date

2013-01-20, 1391/11/01

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

Corneal astigmatism & wavefront aberration changes after cataract surgery: single clear corneal incision versus paired opposite clear corneal incisions

##### Public title

Effect of corneal incision in cataract surgery on astigmatism and optical aberrations

##### Purpose

Treatment

##### Inclusion/Exclusion criteria

Inclusion criteria: Patients with cataract ; Corneal astigmatism greater than 1.5 diopter. Exclusion: Any other

corneal pathology; Corneal scar; Pteregium; History of previous corneal surgery; Peri operative complication.

#### Age

No age limit

#### Gender

Both

#### Phase

N/A

#### Groups that have been masked

No information

#### Sample size

Target sample size: 50

#### Randomization (investigator's opinion)

Randomized

#### Randomization description

#### Blinding (investigator's opinion)

Single blinded

#### Blinding description

#### Placebo

Not used

#### Assignment

Parallel

#### Other design features

## Secondary Ids

empty

## Ethics committees

### 1

#### Ethics committee

##### Name of ethics committee

Ethics Committee of Isfahan University Of Medical Sciences

##### Street address

Daneshgah Ave

##### City

Isfahan

##### Postal code

#### Approval date

2011-10-19, 1390/07/27

#### Ethics committee reference number

391296

## Health conditions studied

### 1

#### Description of health condition studied

corneal astigmatism and aberrations

#### ICD-10 code

H 52.2,

#### ICD-10 code description

Disorders of ocular muscles, binocular movement, accommodation and refraction,

## Primary outcomes

### 1

#### Description

Keratometric astigmatism

#### Timepoint

Preoperation and 3 months postoperation

#### Method of measurement

Keratometry

### 2

#### Description

Optical aberrations

#### Timepoint

Preoperation and 3 months post operation

#### Method of measurement

Wavefront

## Secondary outcomes

empty

## Intervention groups

### 1

#### Description

Control group:Single clear corneal incision on steep meridian

#### Category

Treatment - Surgery

### 2

#### Description

Intervention group:Paired opposite clear corneal incisions on steep meridian

#### Category

Treatment - Surgery

## Recruitment centers

### 1

#### Recruitment center

##### Name of recruitment center

Feiz Hospital

##### Full name of responsible person

Dr.Hasan Razmjoo

##### Street address

Qhods Sq, Modarres St

##### City

Isfahan

## Sponsors / Funding sources

### 1

#### Sponsor

##### Name of organization / entity

Isfahan University Of Medical Sciences

##### Full name of responsible person

Dr Hasan Razmjoo

**Street address**

Daneshgah Ave

**City**

Isfahan

**Grant name**

**Grant code / Reference number**

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

Yes

**Title of funding source**

Isfahan University Of Medical Sciences

**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**

Isfahan University Of Medical Sciences

**Full name of responsible person**

Nima Koosha

**Position**

Resident of Ophthalmology

**Other areas of specialty/work**

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**Web page address**

**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*