# Effect of phacoemulsification on trabeculectomy function

Submission date	Recruitment status No longer recruiting	<ul><li>Prospectively registered</li></ul>		
30/05/2017		☐ Protocol		
Registration date	Overall study status Completed	Statistical analysis plan		
06/06/2017		[X] Results		
Last Edited	Condition category	[] Individual participant data		
26/11/2020	Eve Diseases			

#### Plain English summary of protocol

Background and study aims

Cataracts occur when the inner lens of the eye clouds, causing vision problems. Glaucoma (high pressure inside the eye) can also cause vision problems. Cataracts can occur alongside glaucoma but also may cause glaucoma, be a result of glaucoma (high pressure inside the eye). For those who have glaucoma and cataracts, there are a number of options on how to treat them. Trabeculectomy is usually done to help lower the internal pressure of the eye by making a surgical incision through a small thin trap door in the eye to drain the fluid. However, this may have an impact on cataract surgery and requires certain management of treatment and medication. One of the main treatments for cataracts is called phacoemulsification, which is a surgical procedure that using a device to break up the cloud lens, and then inserts an intraocular lens (IOL) (an artificial lens) using an incision. Incisions can be made in different locations. The aim of this study is to compare two different corneal (the front clear layer of the eye) incisions of uneventful phacoemulsification and IOL on eyes that have undergone previous successful surgery for glaucoma.

#### Who can participate?

Adults aged 18 or older who previously had a success trabeculectomy for glaucoma who need cataract surgery

#### What does the study involve?

Participants are randomly allocated to one of two groups. Those in the first group undergo phacoemulsification with a temporal (near the front) corneal incision. Those in the second group undergo phacoemulsification with a superior corneal incision (done under the eye lid). Participants in each group are compared for their intraocular pressure changes (pressure in the eye), any blebs (part of the eye ballooning and protruding from the top of the eyeball) and any needed medication for glaucoma.

What are the possible benefits and risks of participating?

Participants may benefit from improvements in vision. There are small risks associated with phacoemulsification such as infections, retinal detachment, flashing, double vision or swelling in the eye.

Where is the study run from? Sohag University (Egypt)

When is the study starting and how long is it expected to run for? October 2014 to January 2016.

Who is funding the study? Investigator initiated and funded (Egypt)

Who is the main contact? Dr Mohamed Anbar

## Contact information

#### Type(s)

Scientific

#### Contact name

Dr Mohamed Anbar

#### Contact details

Sohag University Sohag University Road Naser City Sohag Egypt 82511

## Additional identifiers

#### Protocol serial number

BOPH-D-16-00308R2

## Study information

#### Scientific Title

Effect of different incision sites of phacoemulsification on trabeculectomy bleb function: Prospective case-control study

#### **Study objectives**

The aim of this study was to compare superior and temporal clear corneal incisions of uneventful phacoemulsification and in-the-bag intraocular lens implantation on intraocular pressure control and the bleb morphology in eyes that have undergone previous successful trabeculectomy.

#### Ethics approval required

Old ethics approval format

#### Ethics approval(s)

Not provided at time of registration.

#### Study design

Prospective single centre randomised controlled trial

#### Primary study design

Interventional

#### Study type(s)

**Not Specified** 

#### Health condition(s) or problem(s) studied

Cataract and glaucoma

#### **Interventions**

Participants who previously undergone trabeculectomy without antimetabolites are consecutively allocated (1:1) to one of two groups.

Group 1 (Temporal group): Participants in this group undergo phacoemulsification with a temporal corneal incision.

Group 2 (Superior group): Participants in this group undergo phacoemulsification with a superior corneal incision.

Comparisons between the two groups are performed after one year of follow-up regarding intraocular pressure changes, bleb morphology score using the Wuerzburg bleb classification score and any added glaucoma medications.

#### Intervention Type

Procedure/Surgery

#### Primary outcome(s)

- 1. Intraocular pressure changes is measured using the Goldman tonometer ... at day one, one week, one month, three months, six months, and one year postoperatively
- 2. Bleb morphology score is measured using the Wuerzburg bleb classification score at day one, one week, one month, three months, six months, and one year postoperatively
- 3. Additional glaucoma medications are measured using patient's records up to one year postoperatively

## Key secondary outcome(s))

There are no secondary outcome measures.

#### Completion date

15/01/2016

## **Eligibility**

#### Key inclusion criteria

1. Previous successful trabeculectomy not augmented by antimetabolites and had well-controlled IOP

- 2. Well-functioning bleb, no preoperative glaucoma medications
- 3. A visually significant cataract before phacoemulsification
- 4. Aged 18 and older

#### Participant type(s)

**Patient** 

#### Healthy volunteers allowed

No

#### Age group

Adult

#### Lower age limit

18 years

#### Sex

All

#### Total final enrolment

100

#### Key exclusion criteria

- 1. Patients with primary angle closure glaucoma,
- 2. Secondary glaucoma
- 3. Associated eye diseases
- 4. Preoperative antimetabolite use
- 5. Posterior capsule rupture and/or vitreous loss during phacoemulsification

#### Date of first enrolment

15/12/2014

#### Date of final enrolment

15/06/2015

## Locations

#### Countries of recruitment

Egypt

#### Study participating centre Sohag University Hospital

Sohag University Sohag Egypt 002

# Sponsor information

#### Organisation

**Sohag University** 

#### **ROR**

https://ror.org/02wgx3e98

# Funder(s)

#### Funder type

Not defined

#### **Funder Name**

Investigator initiated and funded

## **Results and Publications**

#### Individual participant data (IPD) sharing plan

The datasets generated during and/or analysed during the current study are/will be available upon request from (manber2006@yahoo.com)

### IPD sharing plan summary

Available on request

## Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	26/06/2017	26/11/2020	Yes	No
Participant information sheet	Participant information sheet	11/11/2025	11/11/2025	No	Yes