SUBJECTS,
METHOD AND
MATERIAL
The present was conducted at department of ophthalmology, M.L.B. Medical College, Jhansi. A total of 42 patients attending in glaucoma clinic and O.P.D. were studied.

The total number of cases were 42, which were of primary type of glaucoma i.e. closed as well as open angle glaucoma. It is to be noted that the surgeons, their various techniques, the Institute remained common factor over the entire period of study. Above 42 cases covered up during this period went through Glaucoma screening and ophtalmoscopie examination to get better idea of the disc and cup etc.

Every case was worked up under the following headings.

1. Name of the patient
2. Age of the patient
3. Sex of the patient
4. Short history with complaints - special emphasis was laid on whether:
   a) There was increased light intensity needed to read or write.
   b) Frequent change of glasses.
   c) Transient impairment of vision associated with haloes around the light.
   d) Periocular pain, congestion of eye, nausea, vomiting.
5. Family history- whether any other member of family also has similar
6. Pre-operative examination consisted of:

a) Visual acuity

b) Field of vision - (i) central field by Bjerrum's tangent screen or peripheral field and central field by Goldman's perimeter, as and when required.

c) Intra ocular pressure- By Schiot's tonometer.

d) Angle- by Goniolens examination.

e) Fundus examination:

f) Lens screening - for grading lenticular changes, if any.

g) Clinical history of having taken any anti - glaucoma therapy.

Those patient were admitted in which surgery was indicated because of inadequate Intraocular pressure control on maximal tolerated medical therapy or progressive visual loss or progressive optic disc cupping. None of the patients had previous filtration surgery and none were receiving anticholinesterase eyedrops at the time of surgery.

Patients were assigned on the day of surgery to either the limbus-based or fornix-based conjunctival flap group using randomized assignment.

The groups thus formed were named A & B

Group A - Fornix-based conjunctival flap.

Group B - Limbus-based conjunctival flap.

**METHOD OF TRABECULECTOMY**

1. Anaesthesia -

a) Peribulbar anæsthesia by injecting 2% xylocaine + sensoricaïne in 1:1
b) Surface anaesthesia by 4% Xylocaine.

2. a) Broad, concentric conjunctivo-tenon flap 7-8 mm made away from limbus, of 10-12 mm length.

b) In some cases fornix - based conjunctivo-tenon flap 10 mm long made at limbus.

3. Conjunctiva was undermined in a natural surgical plane between conjunctiva, episclera and sclera until the conjunctival flap reflected over the cornea, exposing the corneo-scleral junction.

In fornix-based, conjunctival flap was made after undermining the conjunctiva and retracting it posteriorly. It exposure was restricted, the incision was increased slightly.

4. Cautery was applied to the exposed bleeding episcleral vessels.

5. The scleral surface was cleaned and a 5 x 5 mm scleral flap is outlined with cautery in the bare area of the sciera this flap is hinged at the limbus which sures that the conjunctival and scleral sutre lines are separated.

6. The scleral flap was made of one halp to one third of the scleral incisions were made 5 mm apart extending back 5 mm from limus, they were joined by a incision posteriorly.

7. The Dissection of the scleral flap was commenced from the posterior incision at the desired thickness and staying in the same surgical plane, it was carried forward onto the cornea to just within the surgical limbus. (about 1mm into the clear cornea).
8. under the scleral flap, the salient external landmarks were recognised - anteriorly transparent deep corneal tissue, behind it grey band of trabecular meshwork, than white opaque clica (At the junction of grey band and white sclera is the scleral spur and canal of schlemm.

9. Outline 2 x 2 mm square of cornea and trabeculum in the undissected cornea and sclera deep to the scleral flap extending anteriorly from the limbus back to scleral spur and hinged to scleral spur, inclining to 1/2 the depth of tissue. The anterior incisions was made at the surgical limbus. The side incision extented back to the scleral spur.

10. The anterior incision was dissected through Descemem's membrane into the anterior chamber. A scissor was introduced and the anterior incision completed. This was extended along the sides cutting back to the external landmark for the scleral spur. The flap was removed by a posterior incision, just in front of the scleral spur, visualizing the sleral spur by rotating the flap posteriorly.

11. Iridectomy was made wider than the trabecuclectomy opening.

12. Lameller external scleral flap was quickly reposited, the preplaced sutures tied.

13. Air injected into anterior chamber to maintain it.

14. In case of fornix based conjunctival flap conjuctiva was rotated anteriorly to the limbus and sutured with the 8/0 or 10/0 nylon suture placed through the conjunctival flap, pulling the conjunctival edge taut along the limbus. In case of limbus based conjunctival flaps the flap repositied back and continous 8/0 or 10/
Post operative follow-up consisted of:

1. Immediate
   a) State of anterior chamber -
      i) Shallow,
      ii) Flat,
      iii) Normal
   b) Keratitis - Present or not
   c) Hyphaema - Present or not
   d) State of bleb -
      i) Diffuse
      ii) Localized
      iii) Non-Existent
   e) Infection - Present or not.
   f) Button - holing of conjunctiva
   g) Post - op Iridod cyclitis

2. Intermediate -
   a) Visual acuity
   b) Tension by Schiotz.
   c) Field -
   d) Fundus by direct ophthalmoscopy
      i) Disc changes
      ii) Nerve fibre bundle defect
c) Lens Changes -
   i) Whether any lenticular opacity is present, if it was not present previously.
   ii) Is it stationary, if it was there
   iii) Has it increased, if it was previously present

f) State and type of bleb formation -
   i) Localized
   ii) Diffuse
   iii) Non existent

3. Late Complications -
   i) Malignant glaucomas
   ii) Flat anterior chamber
   iii) Infection
   iv) Hypotony
   v) Hyper trophy of bleb
   vi) Visual deterioration
   vii) Late rise of I.O.P.