



CONGENITAL GLAUCOMA

جامعة ساوة

كلية التقنيات الصحية والطبية

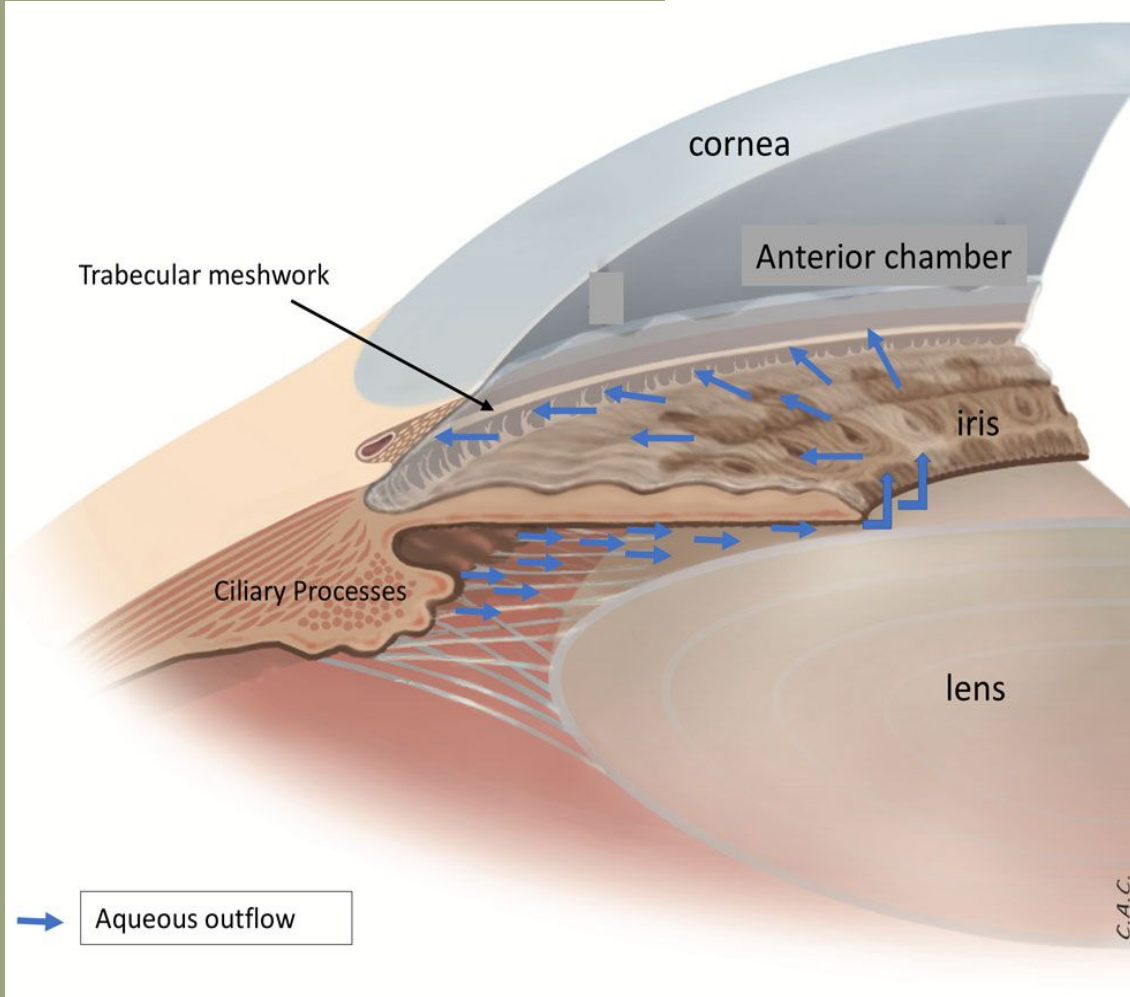
قسم تقنيات البصريات

المرحلة الرابعة

الفصل الأول

طب عيون أطفال

IN GENERAL



- ❖ A rare disease
- ❖ It occurs before the age of three years
- ❖ The cause is an obstruction that prevents adequate drainage of aqueous humor because of abnormal development of the trabecular meshwork (TM) and anterior chamber angle

CLINICAL PRESENTATION

- ❖ The most common presentation is the classic triad of:

1. Epiphora
2. Photophobia
3. Blepharospasm

- ❖ Characteristic signs include:

1. globe enlargement (buphthalmos)
2. Edema and opacification of the cornea
3. increased corneal diameter (megalocone)
4. elevated IOP
5. Changes in the optic disc
6. Visual acuity may be reduced
7. visual fields may be impaired



buphthalmos



corneal enlargement and edema

OPHTHALMIC EXAMINATION

- ❖ In cases where congenital glaucoma is suspected, it is mandatory to perform an emergency ophthalmic examination under sedation or general anesthesia to measure the IOP and corneal diameter.

1. corneal diameter, which normally does not exceed 10 mm at birth, is increased considerably.

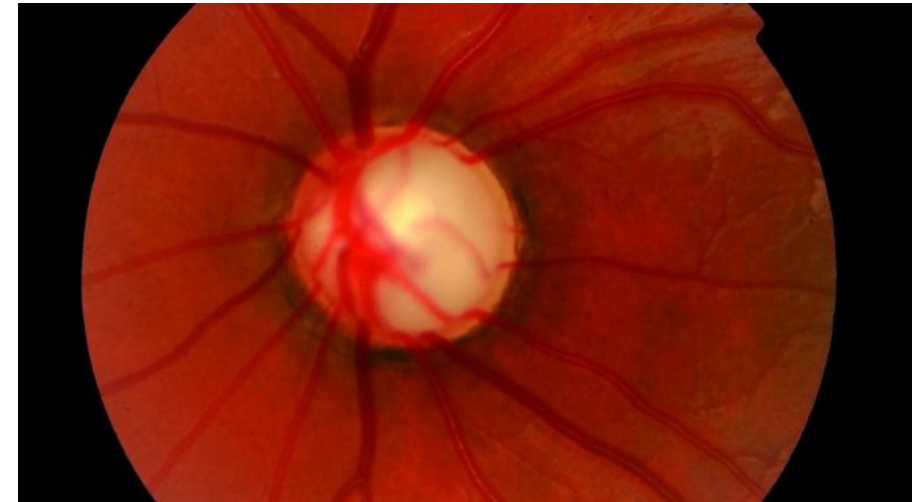


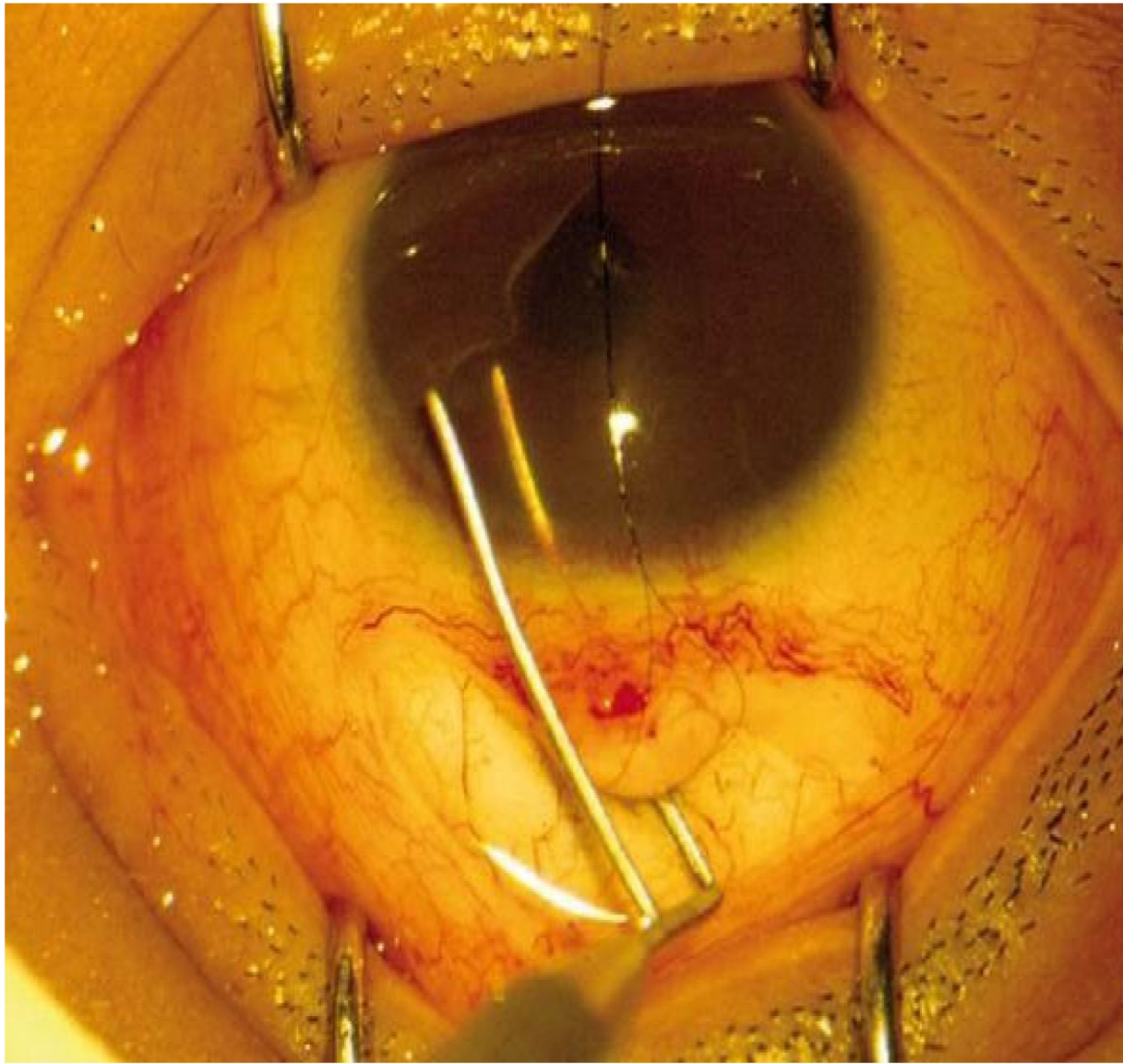
2. The Perkins tonometer is preferred in measuring IOP in congenital glaucoma

An IOP greater than 21 mm Hg is abnormal

3. The visual function can be impaired by a variety of mechanisms:

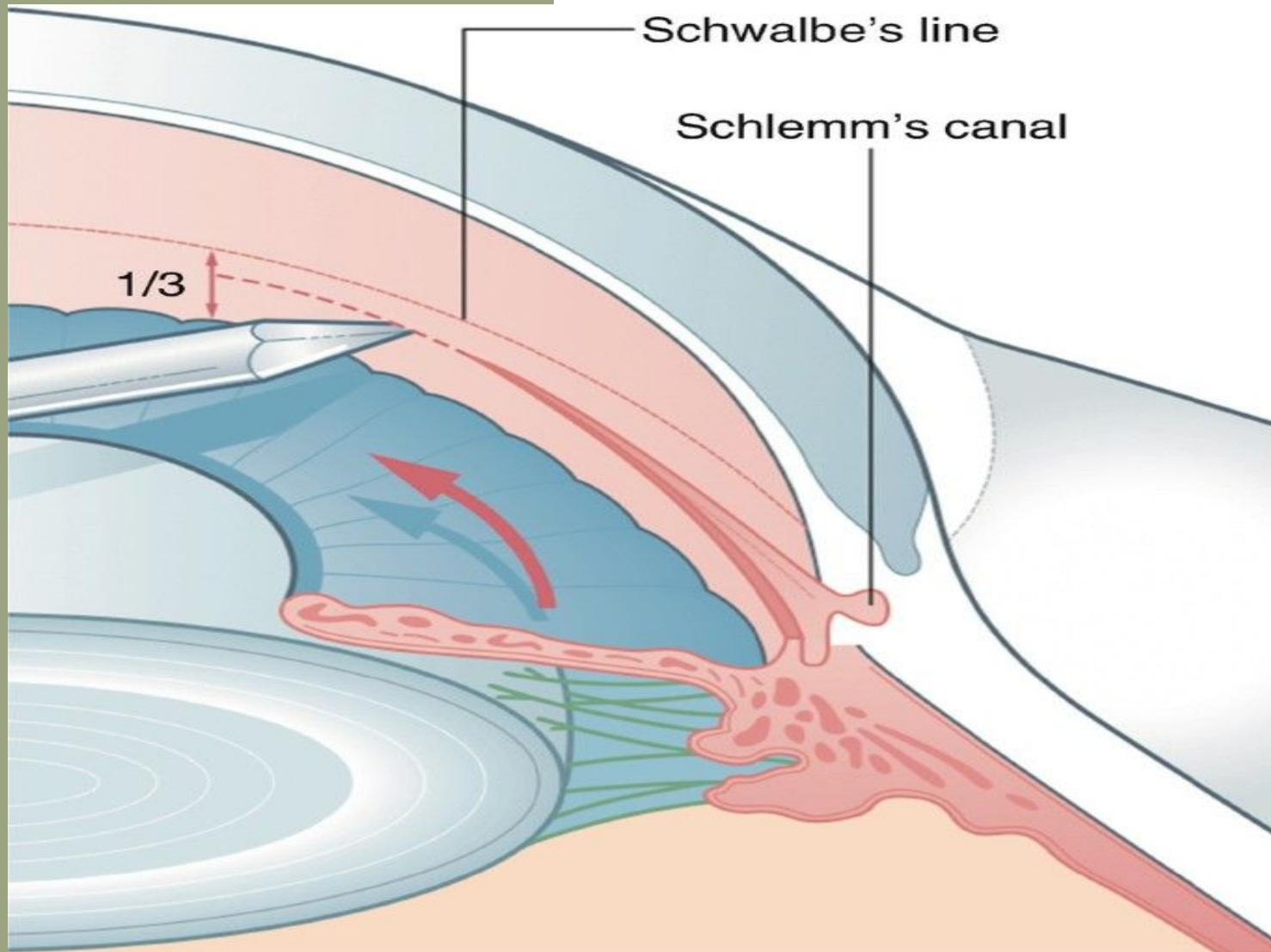
- A. severe myopia due to globe expansion
- B. corneal disorders
- C. irregular astigmatism
- D. optical nerve fiber damage: Cup/Disc ratio more than 1/10 in children less than one-year-old is abnormal.



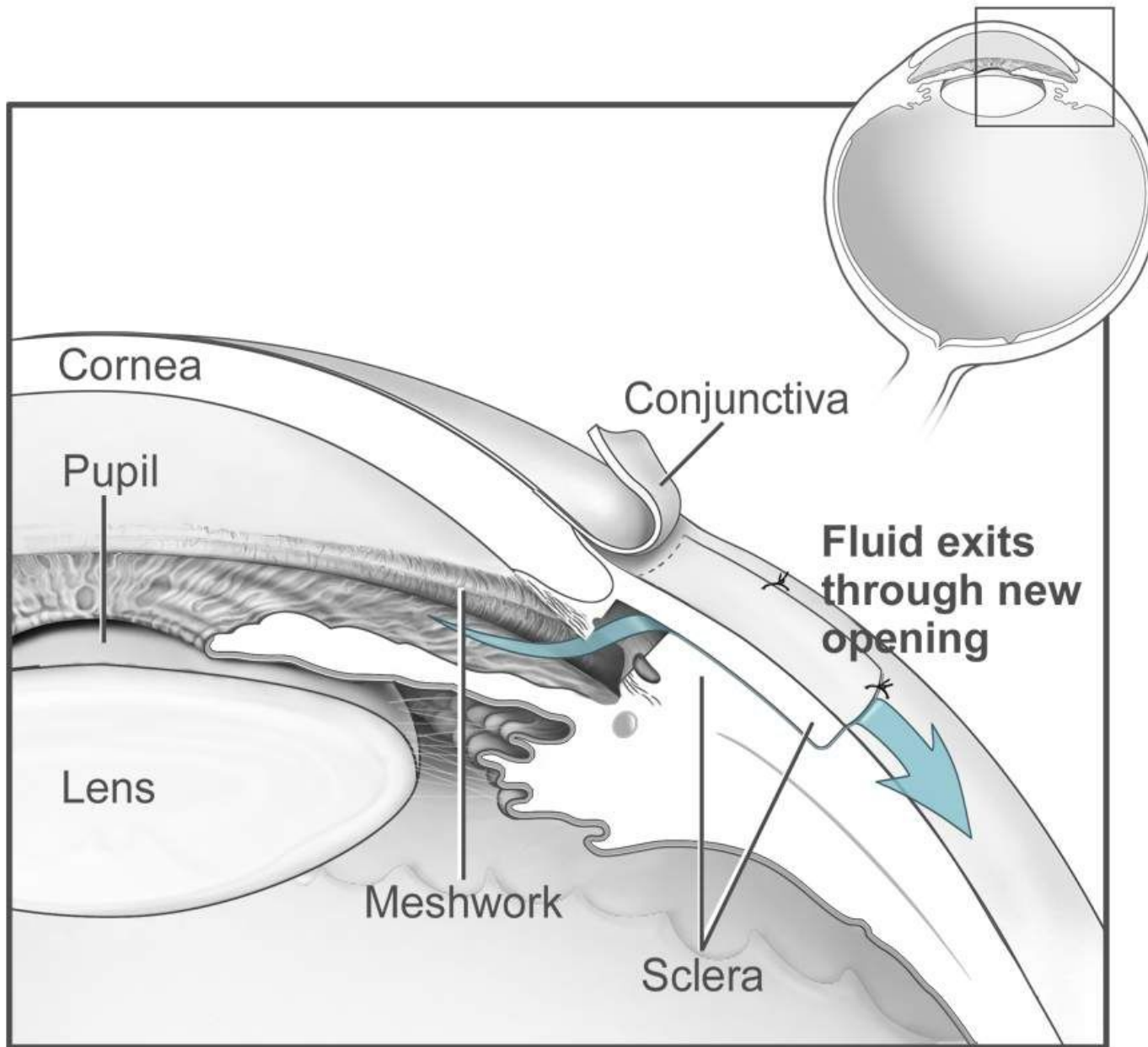


TREATMENT

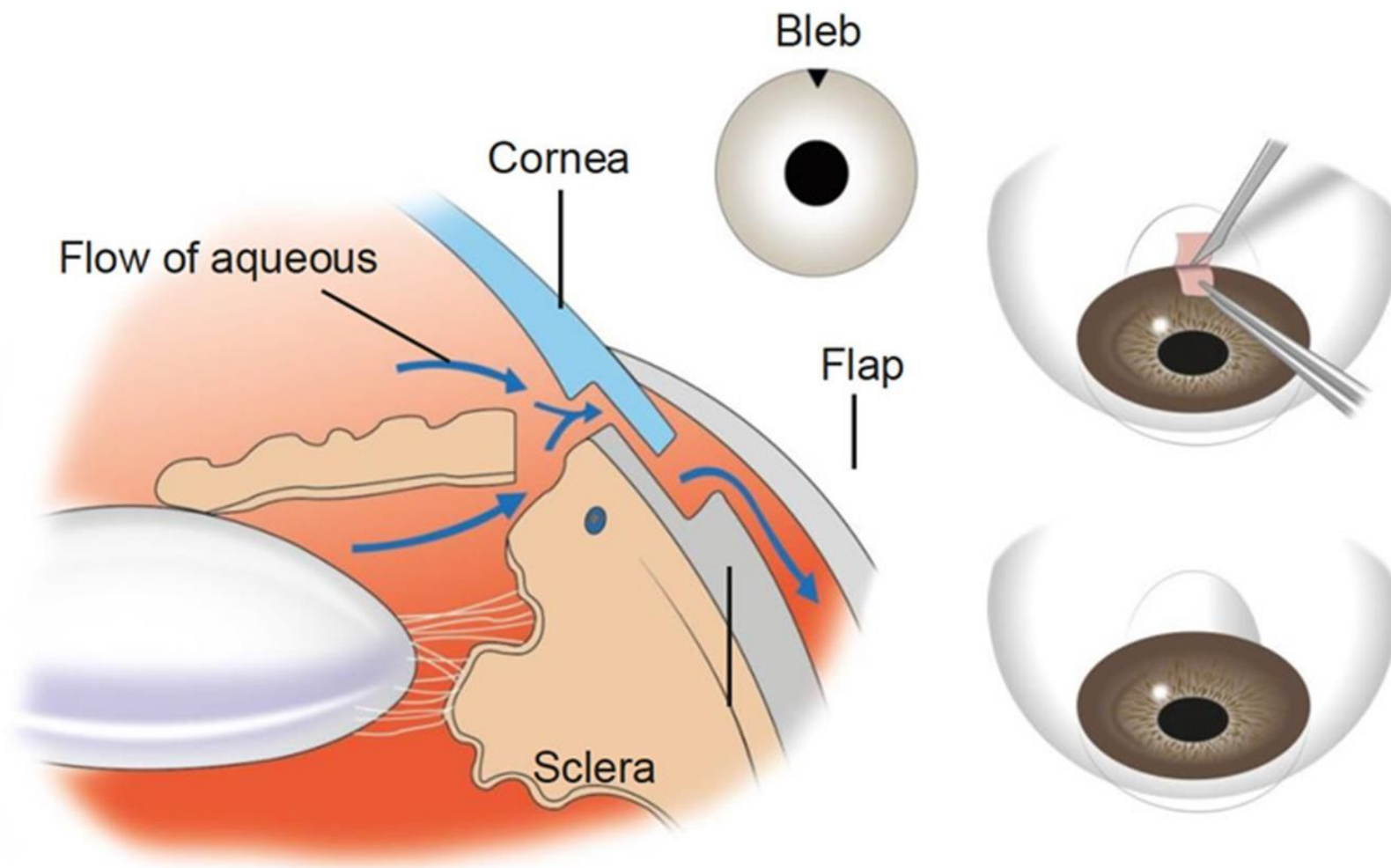
- ❖ Surgical treatment:
 - is the mainstay of management
 - 1. Goniotomy
 - 2. Trabeculotomy
 - 3. Trabeculectomy



Goniotomy



Trabeculotomy



Trabeculectomy

❖ Medical therapy:

- has a significant role in different ways:
 1. to lower the IOP initially as the surgical intervention is arranged
 2. in between surgeries
- They are used topically in the form of eye drops
- work either by decreasing aqueous humor secretion or increasing its outflow.

