المؤتمر السنوي الدولي للجمعية الرمدية المصرية
INTERNATIONAL CONGRESS OF THE
EGYPTIAN OPHTHALMOLOGICAL SOCIETY
EOS 2023

cataract surgery in abnormal cornea

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challenges

01 Corneal opacity

02 keratoconus

03 KP

Corneal opacities

phaco alone vs tripple procedure

RGP fitting
aberrometer

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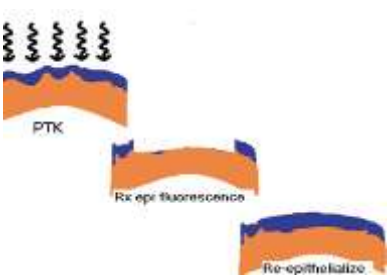
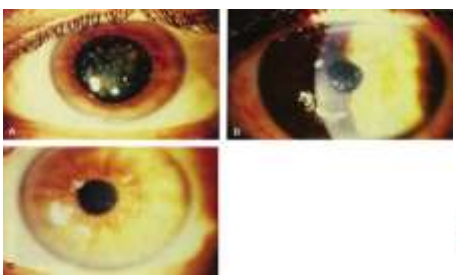
PTK

When corneal opacification is restricted to the anterior 100 µm of the cornea, a phototherapeutic keratectomy (PTK) may be attempted before cataract surgery. PTK is performed in the central 5-mm zone. In cases with band keratopathy, a surgical blade may be used for mechanical removal of calcium plaques. Methylcellulose may then be used as a masking agent for irregular surfaces before ablation. Adequacy of the depth of ablation is assessed with regular intraoperative visualization of the cornea between laser bursts





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Subsequent cataract surgery may be performed 6 weeks after PTK using a standard surgical technique.

- visualization

Cases with deep or full-thickness corneal scars are not amenable to treatment with PTK. In such situations, the corneal opacity may impede visibility—even in the presence of an adequate fundus reflex. Intraoperative steps, such as capsulorrhexis, nuclear emulsification, residual cortex removal, and IOL implantation are dependent upon the ability to visualize the capsular bag anatomy.

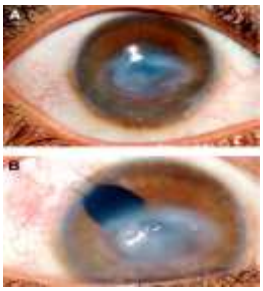
In these cases, trypan–blue-assisted cataract surgery is a viable option; however, at least part of the cornea must be clear to allow visualization of the stained capsule and nucleus after capsulorrhexis creation.

- **PUPILLARY ENLARGEMENT**

In cases with cataract and coexisting partial corneal opacification, cataract surgery with pupillary enlargement helps to create an optical window.

A sphincterotomy or an optical iridectomy may be used.

In either treatment, the size of the pupil is enlarged in the direction of the clear cornea. This may confer long-lasting ambulatory vision after cataract surgery in patients with a central corneal opacity and not fit for KP.



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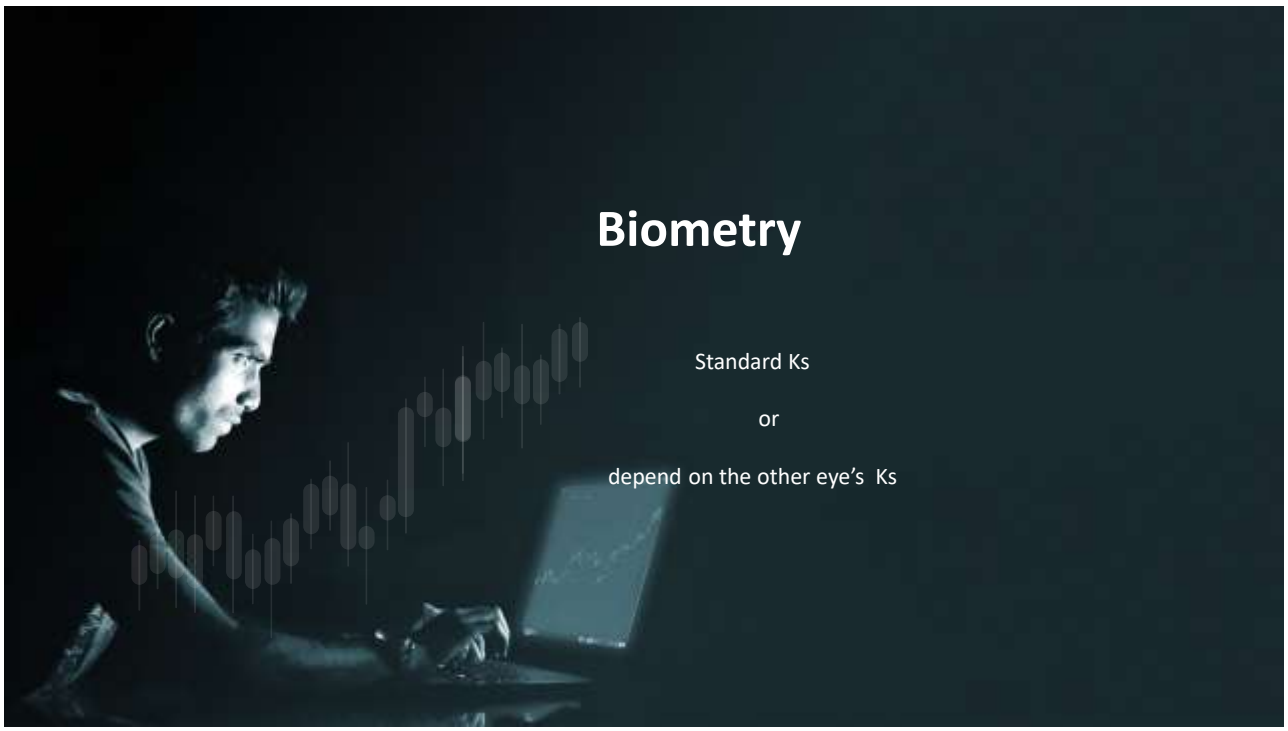


Previous Rk

A- Biometry problems.
B- Opened wounds of RK.
C- Protecting the cornea during surgery.
D- Wait long time postoperatively to evaluate the refractive results(results are unpredictable).

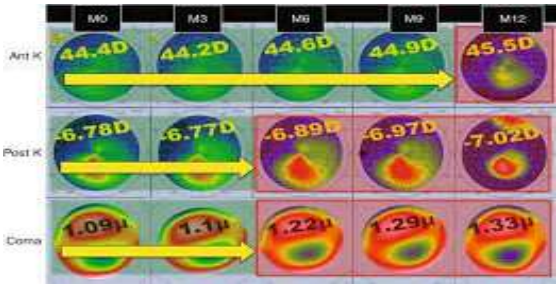
Cataract In Keratoconus

- CST related
- Effect of CXL
- senile

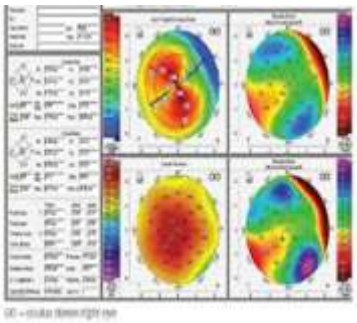
- Before performing any surgical operations on eyes with established KCN, stability of disease and its stage should be considered.

CXL first

- In early progressive KC



Triple procedure if

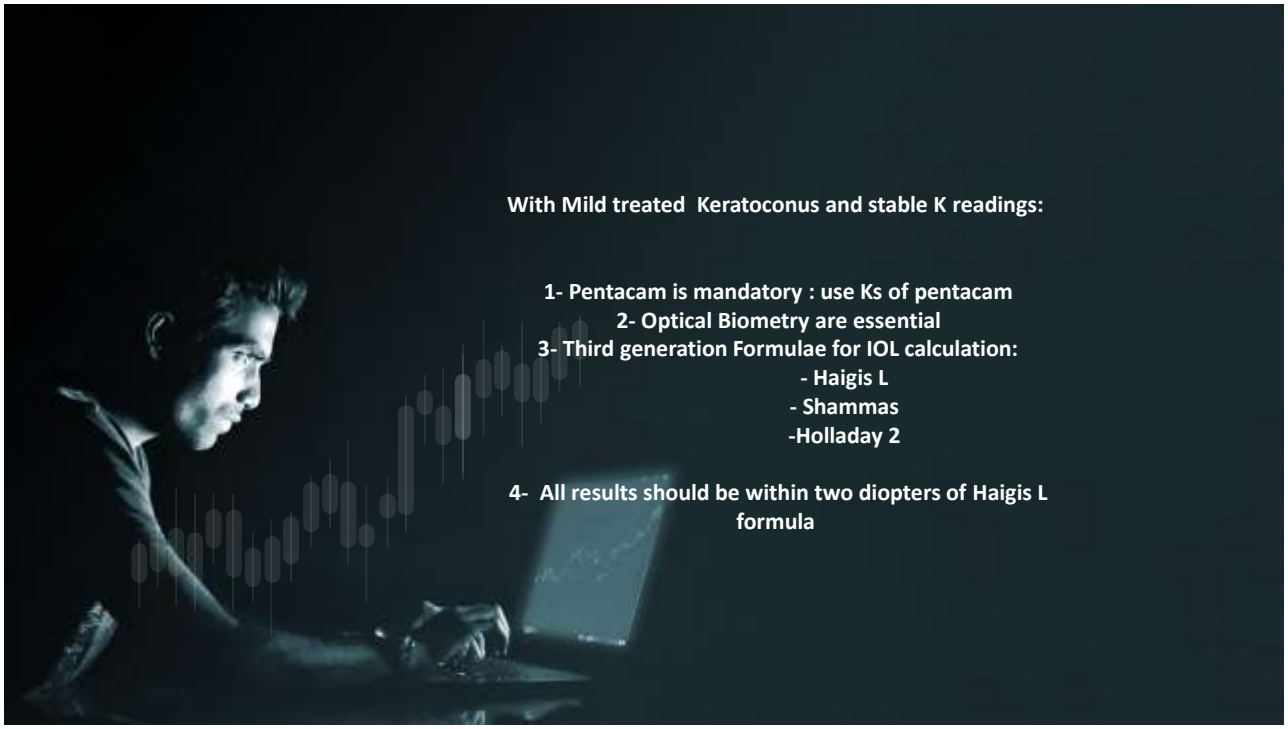


- Apical scar
- Hydrops
- K more than 65D
- Pachymetry less than 400 microns in the center

Problems of biometry

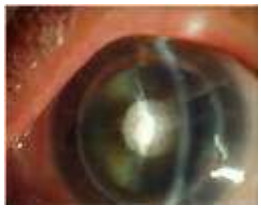
visual axis of keratoconic eyes might not pass through the steepest part of the cornea, and hence K readings could be less precise

steep keratometric values in these eyes will result in the selection of a low-power IOL. Presence of a low-power IOL will yield postoperative hyperopia



: **Make the surgery on steps:**
first : remove the cataract then assess the need of the IOL when the powers of IOLs are out of range…(- 17.00 D , - 15.00 D IOL)

POST PKP



- Wait 6-12 months after PKP suture removal .
- Specular microscopy
- Full explanation of rejection chance and endothelial cell loss .
- Soft shell technique for endothelial protection.

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THANK YOU

See you next year

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