Corneal Problems for the Cataract Surgeon

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Four Common Problems

- Dry Eye
- Anterior Membrane Dystrophy
- Keratoconus
- Fuch’s dystrophy

Dry Eye syndrome

- Dx: Symptoms
  - Reading and computer fatigue
  - Foreign body sensation
  - Light sensitivity
  - Symptoms worse as the day goes on
- Signs:
  - Fluorescein and Rose Bengal Staining
  - Decreased tear meniscus
  - Schirmer’s test

Fluorescein stain: Sjorgren’s Syndrome
Rose-Bengal

Devitalized epithelium/mucus

Slitlamp Examination

Evaluation of Tear Meniscus
Fluorescein Staining
Rose Bengal/Rose Bengal/
Lissamine Green Staining

Schirmer Test

Without anesthesia
• Measures reflex tear secretion

With anesthesia
• Eliminates stimulated tearing

Consequences of Severe Dry eye

• Sterile Ulcerations
• Filamentary Keratitis
• Bacterial Keratitis
• POOR UCVA AND BCVA POST CATARACT
  – Especially with premium (multifocal+toric) IOL’s
**Prevention and Treatment**

- **1st:** Identify patients at risk
- **2nd:** Pre-treat if appropriate
  - Topical Cyclosporine (restasis)
    - 1 month pre-op
    - Supplement with tears
    - Punctal plugs if appropriate
- **3rd:** Minimize Toxicity
  - Choose preservative free drops when possible
    - Moxifloxacin 0.5% (Vigaomox, Moxifloxacin)
    - Taper meds as quickly as possible
Anterior Basement Membrane Dystrophy

- Signs: Map, Dot, Fingerprints
- Symptoms: Recurrent Erosions
- POST OP PROBLEMS
  - Focal Corneal edema
    - In areas where epithelium poorly adherent
    - DECREASED UCVA AND BCVA

Treatment

- If mild: observation
- If symptomatic recurrent erosions
  - Consider Muro 128 5% ointment at night
  - Often associated with dry eye
    - Topical cyclosporine helpful
- Consider Superficial Keratectomy
  - For decreased BCVA or UCVA
    - PTK
    - AMOIL’S BRUSH

Keratoconus

- Identify: Screen All patients with topography
- Especially candidates for toric and multifocal IOL
- Do not implant multifocal IOL
Fuch’s corneal dystrophy

- Diagnosis: Guttate at Slit lamp
  - Corneal edema
- Specular microscopy
Fuch’s Endothelial Dystrophy

Fuch’s Dystrophy and Cataract

• If corneal pachymetry > 600 or symptoms of corneal edema
  – Consider combined procedure
  – Phaco with IOL and DSAEK
• If corneal pachymetry < 600, no sx’s
  – Phacoemulsification:
    • NO MULTIFOCAL IOL’s
      – Guttate degrade contrast sensitivity
    • USE BSS (+): has glutathione

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