Cataract Surgery Prophylaxis

Intracameral Antibiotics
Subconjunctival Triamcinolone
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I have no financial interests to disclose
Complications

• Endophthalmitis
  • Rare
  • 20% blindness

• Cystoid Macular Edema
  • Common (1-3%)
  • Mild vision loss
  • Cost $
  • Loss of faith
Drops - Risks

- Expensive
- Failure to:
  - Order
  - Pick up
  - Instill
- Contamination
- Abrasion
- Traumatic
Injections - Antibiotic

- ESCRS (2006/2007)
- Intracameral cefuroxime (2007)
  - Non allergic
  - Uncomplicated surgery
- Added moxifloxacin/vancomycin (2010)
- Subgroup stopped antibiotic drops
Injections – Steroid

- Subconjunctival triamcinolone (2008)
  - Familiarity in uveitis
  - Visible location
  - 2mg
  - Dissolves in 2 months
  - Quiet eyes
Results

- Low incidence of endophthalmitis
  - 1/7000 overall (JCRS 2013)
  - 1/2000 intracameral only (1 case in 2010)

- Incidence 1% of CME (ASCRS 2013)
Advantages – No Drops

• Definitive drug delivery
  • Where it counts (antibiotic)
• Long acting steroid
  • Avoids peaks and troughs
• Avoids contamination
• Avoids trauma to eye
Barriers - Antibiotic

• Compounding
  • Time
  • Money

• Which one?
  • Cefuroxime
  • Moxifloxacin
  • Vancomycin

• Route
  • Simple injection
  • Replacement
Barriers - Steroid

• Intraocular Pressure
  • 1% (ASCRS 2013)
  • 1 week – 1 month
  • 30-40s
  • history of elevated IOP (Normal nerve)
  • responds to topicals and excision

• Higher concentration (40mg/mL)
  • Small volume (0.05mL)
  • Rarely 3-4 month dissolution
Steroid Concentration (2mg)

0.05mL of 40mg/mL

0.2mL of 10mg/mL
Current Research

• NEI Grant – Endophthalmitis
  • Compare antibiotic regimens
    • Topical Drops
    • Subconjunctival antibiotics
    • Intracameral antibiotics

• Kaiser Permanente Grant – CME
  • CME diagnosis
    • SD-OCT, TD-OCT, Fluorescein Angiography, Slit lamp
  • Compare steroid injection/drops +/- NSAIDs