

## **Congenital & Systemic Disorders of the Cornea**

### **Learning Objectives**

1. Compare/contrast the clinical presentation, exam findings, differential diagnoses, treatment, and prognosis of developmental anterior segment anomalies (e.g. BCSC Table 6-1)
2. Describe common presentations and treatment options for secondary anomalies of the infant cornea (e.g. infections, glaucoma, birth trauma)
3. Compare/contrast the corneal findings, clinical presentation, pathogenesis, evaluation, and management of inherited metabolic diseases.
4. Describe the cornea/anterior segment findings, clinical presentation, pathogenesis, evaluation, and management of skeletal and connective tissue disorders and endocrinologic disorders.

### **Pre-work:**

1. BCSC Cornea: Please read these chapters (51 pages total, 1.5 to 2 hours)
  - Ch. 6: Congenital Anomalies of the Cornea and Sclera (pp. 137-155)
  - Ch. 10: Systemic Disorders with Corneal and Other Anterior Segment Manifestations (pp. 247-278)
2. Dr. Flynn's AAO PowerPoints
  - AAO K10. Congenital/Developmental Cornea Issues [PDF](#) | [PPT](#) (240 slides)
  - AAO K13. Selected Systemic Diseases of Childhood with Corneal Findings [PDF](#) | [PPT](#) (168 slides)
  - AAO FELT24. Peters Anomaly [PDF](#) | [PPT](#) (85 slides)
3. Eyes for Ears Podcast
  - Ep. 29: [Metabolic Disorders I](#) – Mucopolysaccharidoses (20 minutes)
  - Ep. 30: [Metabolic Disorders II](#) – Sphingolipidoses (20 minutes)
  - Ep. 42: [Axenfeld Rieger](#) (25 minutes)
  - Ep. 64: [Differential for Enlarged Corneal Nerves](#) (30 minutes)

### **Format of the 2-hour lecture:**

1. Start the lecture with a Kahoot learning game: rapid-fire cornea questions (<https://kahoot.com/>) ~ 30 minutes
2. Case-based learning: Become familiar with the ABO board testing, please watch this video (<https://youtu.be/Da5bKTFKtM4>) & be prepared to answer cases in an oral-board style. ~1 hour
3. 10 OKAP Cornea Questions: Pair up in teams of PGY1-4 and answer the 10 questions displayed at the end of the lecture. We will review these as they are answered. ~ 30 minutes