Dry Eye Disease: Francis D’Ambrosio, MD

Dry Eye is the most frequently diagnosed ophthalmic condition
Estimated to affect 35-50% of the population

Two categories:
Aqueous deficiency (decrease tear production)
Meibomian dysfunction (evaporative)

Pathophysiology is poorly understood, but inflammation plays a dominant role

Three points about DED:
1. Tear film and surface epithelium are inter-related
2. Multiple causes
3. Causes ocular discomfort and visual disturbances

Signs:
Mild: conjunctival hyperemia, SPK, blepharitis
Severe: conjunctival scarring, corneal neovascularization, symblepharon

Symptoms:
Tearing, burning, irritation, FB sensation, eye fatigue, CL intolerance, light sensitivity, blurred vision.

Causes:
1. Aqueous deficient
   a. Sjogrens-autoimmune
   b. Non-Sjoogren’s-lacrimal dysfunction
2. Evaporative-most common is lacrimal dysfunction

Most common diagnostic methods:
1. Tear quality and quantity
   a. Tear break-up time (TBUT)
   b. Schirmer’s test
2. Meibomian Gland Dysfunction (MGD)
   a. Tearscape and Lipiview (Proprietary)
   b. Meibography
3. Damage to epithelium
   a. Fluorescein(cornea)
   b. Lissamine Green(conjunctiva)

Treatment Options:
Treat the Cause
Treat the symptoms
*Treating the cause will treat the symptoms but treating the symptoms will not necessarily treat the cause.

Treating by Elimination:
Contact lenses, smoking, drops with preservatives, environmental factors.

Treating by Addition:
Lubrication, punctal plugs, anti-inflammatory (steroids, cyclosporine A, Omega-3’s, Vitamin A), meibomian gland massages, surgery.