Questions?

- Herbert pits are seen in what ocular condition?
- What ocular sign is diagnostic of EKC?
- What ocular sign is diagnostic of HSK?
- What is disciform keratitis?
- How do you treat HZO?
General Findings
- Ocular allergies affect 15-30% of the population.
- Each year more than 50M Americans suffer from allergic diseases.
- May be one of the most common ocular conditions seen in the optometric practice.
- Increase prevalence may be related with cigarette smoke, certain drugs, nutrition during prenatal period and exposure to indoor and outdoor environmental factors and allergens.
- Genetics combined with the right environmental triggers may ultimately lead to allergies.

Types
- Acute/Hay Fever
  - Chronic
    - Giant Papillary
    - Vernal
    - Atopic

Allergic Rhinoconjunctivitis
- Most common form of ocular and nasal allergy
- A hypersensitivity reaction to specific airborne antigens

Acute/Hay Fever
- Seasonal/Perennial
  - Symptoms (transient & acute attacks) bilateral
    - Itching; mild or moderate
    - Red eyes
    - Swollen eyelids
    - Stringy discharge with tearing
    - Burning
    - Runny nose, sneezing, itchy ears, throat/roof of mouth, popping in ears secondary to fluid
    - Attacks are usually short lived and episodic
**Signs--- Bilateral/ Symmetric**
- Bulbar conjunctival chemosis –milky or pinkish (gelatinous)
- Mild injection
- Mild papillary reaction
- Eyelid redness and edema- Dennie’s line (horizontal fold in lower lid)
- Venous dilation can cause lower lids to appear darker than normal-allergic shiner
- Watch for dellen formation
- Rare keratitis
- Nasal discharge and congestion- rhinitis plus sinusitis

**Systemic Symptoms**
- Itchy ears, throat, roof of mouth
- Congestion
- Popping in ears secondary to fluid
- Runny nose

**Etiology-**
Immediate hypersensitivity (Type I) to a wide variety of substances
- Insect bites
- Ragweed pollen (hay fever) in the late summer & grass pollen in May/June- trees, grasses, airborne allergens, seasonal
- House Dust Mites or fungal allergens- perennial
- Animal dander
- Topical or systemic drugs
- Foods
- Mold spores
- Positive history of other forms of immediate hypersensitivities i.e. asthma, atopic dermatitis, food allergies
- Skin testing may be helpful in some cases: co-manage with allergist
- Affects both genders & all age groups

**Treatment & Management**
- Cold compresses
- Non-preserved, cool tears
- Topical antihistamines
- Mast cells stabilizers
- *Mast cells stabilizers + antihistamines
- NSAIDS
- Steroids
- Oral antihistamines
**Chronic Giant Papillary Conjunctivitis**

- **General Characteristics**
  - A specific conjunctival reaction to soft contact lens wear, PMMA/RGP CIs (10-15% of CL wearers), ocular prosthesis or post operative sutures - chronic mechanical trauma due to an ocular FB or protuberance - not really an allergic disease.

- Represents a chronic conjunctival inflammatory response to denatured proteins adherent to lens surface
- A reflection of individual immunologic response, rather than individual differences in lens deposits
- Severely-coated contact lenses
- Contact lens decenters and rides high, loss of wearing time

**Etiologies**

- Ocular prosthetics, exposed suture barbs, glue, elevated corneal disease, band keratopathy, scleral buckles, dermotolipomas, glaucoma filters: GPC - correspond to site of elevation
- GPC different presentation with hard (closer to eyelid margin) vs soft (scattered pattern all over the tarsal conjunctiva)

**Symptoms**

- Itching and burning
- Excessive mucous discharge
- Dirty soft contact lenses
- Soft contact lens intolerance and lens instability
- Increased lens awareness and excessive lens movement

**Signs/Stages**

- Preclinical
  - Itching especially upon lens removal plus mild mucous, especially next AM
- Early GPC
  - Slight increase in size and elevation of papillae
  - Mild conjunctival hyperemia
  - Contact lens will be mildly coated
  - Papillae - middle & superior tarsus in SCL & smaller & more inferior in RGPs
**Moderate GPC**

- Increase number and size of papillae (.3-.8mm), NaF1staining of the tops of the papillae and is a sign of increase activity
- Heavy mucous production
- Contact lens coating