

CHRONIC OCULAR INFLAMMATION II

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Outline This lecture will review chronic inflammation, beginning at a basic science level and working up to applied physiology. Emphasis will be placed on common eye conditions such as allergy and dry eye. Various treatment options will be discussed based on theoretical pharmacology and evidence based medicine. Medical billing policies and procedure will be covered during the case study discussions.

Objectives This lecture will help clinicians understand the main physiological components involved in chronic inflammation. The differences between acute and chronic inflammation will serve as a basis for discussion of various treatment options. The clinician should leave the lecture with practical treatment options based current theories of inflammation at a cellular layer.

I. Basic Science

1. Main Component of Chronic Inflammation

a. Eosinophils

- description and role

b. Neutrophils

- description and role

c. Cytokines

- description and role

d. Adhesion molecules

- description and role

2. Secondary mediators

a. Actions and consequences

- Leukotrienes

- Prostaglandins

- Bradykinin

- Cytokines

II. Applied Physiology – Causes of inflammation

1. Dry Eye

a. Underlying causes of dry eye

b. Neural feedback loop

c. Tearfilm

- importance

- function

- composition

d. Instigator or perpetuator of inflammation?

- mechanical factors

- chemical factors

e. Diagnosis

- lissamine green, tbut, lid eversion, Lasik

f. Eyelid involvement

- importance of meibomian gland function

- ocular rosacea complications

g. Treatment options

- artificial tears

- corticosteroids

- immunosuppressants

- bandage contact lenses

- antibiotics

- Omega 3

2. Allergy

- a. Acute vs chronic response

- b. Cellular cascade of allergic response

- c. Types of Ocular allergy differences in cellular response

- Seasonal/perennial

- Vernal

- Atopic

- GPC

- d. Mast cell stabilization

- c. Treatments

- artificial tears

- corticosteroids vs. antihistamines

3. Compounding dry eye and allergy

- a. Treatment considerations

- b. Safety profile of treatments

4. Case Studies

- a. Sjogrens related ocular surface disease

- Diagnosis, treatment and management

- b. Ocular rosacea

- case 1

- case 2

- Diagnosis, treatment and management

c. Dry eye and allergy

- Diagnosis, treatment and management

d. Toxic keratoconjunctivitis

- Diagnosis, treatment and management

5. Conclusion – Wrap up and medical billing review

a. S-codes

- Description, usage, and restrictions

b. E/M codes vs Eye Codes

- Comparison and descriptions

c. Utilization of eye codes

- Requirements and restrictions

d. Chief complaint

- Description, significance, proper documentation