

AKC, VKC, OCP, SJS – An alphabet soup of inflammatory diseases

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Learning Objectives:

1. Define immunopathology of ocular manifestations of inflammatory and atopic diseases
2. Identify ocular signs of inflammatory and atopic diseases
3. Delineate the role of the optometrist in the multidisciplinary approach to treatment of inflammatory and atopic diseases.

Summary:

Occasionally, inflammatory diseases come into the eye care professional office requiring prompt identification sometimes occurring as the primary diagnosis. These diseases require a multidisciplinary approach for treatment to prevent rapid and sometimes irreversible vision loss. We describe the signs as well as treatment of these diseases to prevent chronic scarring and vision loss.

Outline:

## I. VIII. OCULAR ATOPY

- A. Atopy is allergic reactivity in persons with a hereditary predisposition to allergic diseases
  - 1. Seasonal/perennial rhinitis
  - 2. Asthma
  - 3. Atopic dermatitis
  - 4. Food allergies
  - 5. Urticaria
- B. Immunopathology
- C. Giant papillary conjunctivitis (GPC)
  - 1. Immunoinflammatory disorder characterized by hypersensitivity to
    - a) Contact lenses
    - b) Sutures
    - c) Ocular prosthetic devices
- D. Seasonal allergic conjunctivitis (SAC)
  - 1. Mast cell activation and degranulation
  - 2. Usually self-limited attacks
  - 3. Type I (IgE-mediated) hypersensitivity reaction
- E. Vernal conjunctivitis
  - 1. Much less common than SAC
  - 2. "Vernal" - occurring in the spring, but may be perennial
  - 3. Immunopathology
- F. Atopic Keratoconjunctivitis (AKC)
  - 1. Chronic atopic condition of conjunctiva and cornea, associated with atopic
  - 2. Dermatitis (eczema)
  - 3. Usually bilateral
  - 4. Typically perennial
  - 5. Clinical characteristics
  - 6. Immunopathology
  - 7. Perivascular cuffing by conjunctival lymphocytes
- G. Approaches to therapy in ocular atopic disease
  - 1. Control of environmental exposure
  - 2. Requires patient education
  - 3. Expert allergist care helpful
  - 4. Air-filtering, conditioning humidifying
  - 5. Antihistamines
  - 6. Mast cell stabilizers
  - 7. Steroids & Nonsteroidals
  - 8. Immunosuppression
  - 9. Other

## II. Ocular Inflammatory Diseases

- A. Ocular Cicatricial Pemphigoid

1. Chronic cicatrizing autoimmune disease of the mucous membranes and skin
  2. Epidemiology
  3. Pathogenesis: Autoimmune disease with genetic predisposition and a probable 'second hit' environmental requirement.
  4. Clinical Features:
  5. Foster classification:
    - a) Stage 1: subepithelial fibrosis
    - b) Stage 2: fornix foreshortening
    - c) Stage 3: symblepharon
    - d) Stage 4: anklyoblepharon + surface keratinization
- B. Erythema Multiforme, Stevens-Johnson Syndrome (SJS) and Toxic Epidermal Necrolysis (TEN)
1. May represent manifestations of the same disease process
  2. Erythema Multiforme Minor:
  3. Erythema Multiforme Major (Stevens-Johnson Syndrome)
  4. Toxic Epidermal Necrolysis (TEN):
  5. Etiology: drug related
- C. Approaches to therapy in ocular inflammatory disease
1. Ocular lubricants
  2. Topical steroids
  3. Immunosuppression
  4. Other
  5. Surgical