Other Ocular Diseases

A. Contact Conjunctivitis

In allergic conjunctival reactions, the lids, conjunctiva, and cornea may be involved. The trigger is contact with an allergen itself (usually a hapten) or in combination with an irritating or toxic substance. Often a contact allergy is triggered by contact lens cleansing or sterilizing solutions or by the long-term use of eye drops, in which case the allergen is usually a preservative.

In allergic reactions, the symptoms tend to appear 48–72 hours after exposure (Type IV reaction). Direct chemical irritation is more common than allergy; signs and symptoms may appear within a few hours if the exposure is extensive.

Clinical features. The periorbital changes include:
- Acute dermatitis with erythema, blisters, edema, and crusting
- Chronic lesions with more crusting, as well as rhagades, lichenification, and dry skin (see D)

The conjunctiva may reveal follicles or papillae, chemosis, and watery or mucoid secretions. Corneal changes may include superficial erosions, subepithelial cloudiness, an inflammatory infiltrate along the corneal border, and, in severe situations, ulcerations or edema. The pruritus can be prominent and most unpleasant.

Therapy. Topical corticosteroids, both as eye drops and for the lids, as well as cold compresses and mild skin care. Mast cell stabilizers, antihistamines and vasoconstrictor eye drops are usually ineffective.

B. Lid Edema

Clinical features. Swelling and erythema of the lids can occur in all forms of allergic conjunctivitis, but are especially common with:
- Allergic rhinoconjunctivitis
- Giant papillary conjunctivitis
- Allergic contact conjunctivitis

The skin of the lid is the thinnest of the entire body and is thus easily damaged or irritated. Systemic Type I reactions such as angioedema also cause lid swelling, but in such cases the itching is not present.

Therapy. Cold compresses

C. Blepharitis

Blepharitis is an inflammation of the lid margins.

Clinical features. The lid margin is inflamed and the lids itch and burn. Patients may complain of a foreign body sensation, increasing tearing, or having their lids glued together in the morning by dried secretions. The lids appear swollen and erythematous, often with crusted secretions on the edge. The conjunctiva are often normal. If corneal ulcers are seen, this suggests secondary bacterial infection. The course tends to be chronic. Etiological agents may include:
- Rosacea
- Seborrheic dermatitis
- Exogenous irritants
- Refractive anomalies
- Bacterial infections of the lash follicles and meibomian glands
- Mite infestation (Demodex folliculorum) of the lash follicles

Therapy. The lid margins should be cleaned with cotton-tipped applicators and diluted baby shampoo; artificial tears should be prescribed. The underlying disease must be treated. If a bacterial infection is confirmed, erythromycin or bacitracin ophthalmic ointment may be helpful.

D. Lid Dermatitis

Lid dermatitis is a chronic process, often seen in patients with atopic dermatitis. It may be associated with contact allergy (A) or secondary to irritation or mechanical trauma. Lichenification is frequent. Typical causes include eye drops, ointments, and cosmetics; preservative agents are often the actual allergens.

Therapy. Avoidance of allergens, cold compresses, brief use of corticosteroid ophthalmic ointments.
Allergic Diseases of the Eyes

Contact Allergy, Lid Edema, Blepharitis, Lid Dermatitis

**A. Contact Allergy**
- Eye drops, contact lens cleansing solutions
- Contact allergen
- Inflammatory infiltrate
- Langerhans cells
- T cells
- Neutrophils, macrophages
- Lymphokines, chemokines
- 48–72 h

**B. Lid Edema**
- Antigen
- IgE
- Mast cell
- Edema
- Mast cell degranulation
- Vasodilatation, permeability ↑

**C. Blepharitis**
- Mites, seborrhea, bacteria, UV radiation, visual disturbances
- Breakdown of free fatty acids
- Increased skin lipids in seborrheic dermatitis
- Meibomian gland
- Tarsus
- Neutrophilic infiltrate
- Inflammation

**D. Lid Dermatitis**
- Eye drops, ointments, cosmetics, especially materials with preservatives
- Antigen, noxious agent
- Fibroblast activation, lichenification
- Uncontrolled chronic inflammation
- APC
- T cells
- Increased skin lipids in seborrheic dermatitis
- IgE
- Mast cell
- Uncontrolled chronic inflammation