8.3.3. Eyelid Diseases Associated With Ocular Surface Disorders (I)

Hordeola and Chalazia

- clinical presentation
  - hordeola
    - painful, tender, red nodular masses near the eyelid margin
      - Figure 3-20 (© 2020 American Academy of Ophthalmology)
    - external hordeola
      - styes
      - on the anterior eyelid
        - glands of Zeis or lash follicles
    - internal hordeola
      - on the posterior eyelid
        - meibomian glands
    - localized purulent abscess
      - S aureus
    - generally self-limited
      - improve spontaneously over the course of 1–2 weeks
  - chalazia
    - internal hordeola occasionally evolve into chalazia
      - from meibomian glands (or glands of Zeis)
    - chronic lipogranulomatous nodules
    - blurred vision secondary to astigmatism induced by its pressure on globe
    - disappears in weeks to months
      - drain either externally through the eyelid skin or internally through the tarsus
      - extruded lipid is phagocytosed and the granuloma dissipates
      - a small amount of scar tissue may remain
    - basal cell, squamous cell, and sebaceous cell carcinoma can masquerade as chalazia (or chronic blepharitis)
      - histologic examination of persistent, recurrent, or atypical chalazia is therefore important
- management
  - cultures
    - not indicated for isolated, uncomplicated hordeolum or chalazion
  - warm compresses
    - with light massage over the lesion
  - topical antibiotics
    - generally not effective and, therefore, are not indicated
    - unless accompanying infectious blepharoconjunctivitis is present
  - systemic antibiotics
    - indications
      - rare
        - secondary eyelid cellulitis
      - prominent and chronic accompanying meibomitis
    - oral doxycycline
  - intralesional injection of corticosteroid
    - for chalazia resistant to warm compresses and eyelid hygiene
    - works best with
      - small chalazia
      - chalazia on the eyelid margin
      - multiple chalazia
    - may lead to depigmentation of the overlying eyelid skin in patients with dark skin
    - 0.1–0.2 mL of triamcinolone 40 mg/mL
  - incision and drainage
    - for large chalazia
    - internal chalazia require vertical incisions through the tarsal conjunctiva along the meibomian gland
      - avoid horizontal scarring of tarsal plates
    - perilesional anesthesia
  - recurrent chalazia should be biopsied to rule out meibomian gland carcinoma

Types of blepharitis

- staphylococcal
- meibomian gland dysfunction
- seborrheic
- See Table 2-9

Seborrheic Blepharitis

- clinical presentation
  - symptoms
    - alone or in combination with staphylococcal blepharitis or MGD
    - burning
    - foreign-body sensation
  - signs
    - increased meibomian gland secretions
      - appear turbid when expressed
      - MGD affects mainly the posterior lid margin
    - crusting
      - on the eyelids, eyelashes, eyebrows, and scalp
      - oily or greasy consistency
    - chronic eyelid redness
      - inflammation occurs primarily at anterior eyelid margin
    - associated keratitis (or conjunctivitis)
      - ≈15%
      - punctate epithelial erosions
      - over the inferior one-third of the cornea
    - evaporative dry eye
      - 1/3
- treatment
  - eyelid hygiene
  - concurrent treatment of the scalp disease with selenium sulfide shampoos

Rosacea

- epidemiology
  - aged 30–60 years
    - can be encountered in younger patients and is often underdiagnosed
  - slight F preponderance
- pathogenesis
  - no proven cause
  - ± overexpression of cathelicidin antimicrobial peptides
    - neutrophil recruitment
      - angiogenesis
      - cytokine release
  - alcohol can contribute to a worsening of this disorder
- clinical presentation
  - cutaneous sebaceous gland dysfunction
    - face
    - neck
    - shoulders
  - facial lesions
    - telangiectasias
    - recurrent papules and pustules
    - midfacial erythema
      - malar rash
      - unpredictable flushing episodes
        - alcohol
        - coffee
    - rhinophyma
      - thickening of the skin and connective tissue of the nose
      - occur relatively late
    - external examination under bright room light
      - Figure 3-16 (© 2020 American Academy of Ophthalmology)
  - ocular findings
    - recalcitrant chronic blepharitis
    - eyelid margin telangiectasia
    - meibomian gland distortion, disruption, and dysfunction
      - excessive sebum secretion
    - recurrent chalazia
    - chronic conjunctivitis
    - marginal corneal infiltrates
      - Figure 3-14 (© 2020 American Academy of Ophthalmology)
    - sterile ulceration
    - episcleritis
    - iridocyclitis
    - corneal neovascularization and scarring
      - secondary to repeated bouts of ocular surface inflammation
      - Figure 3-15 (© 2020 American Academy of Ophthalmology)
- management
  - ocular and systemic diseases are managed simultaneously
  - systemic tetracyclines as the mainstay of therapy
    - anti-inflammatory properties
      - suppression of leukocyte migration
      - reduced production of nitric oxide and reactive oxygen species
      - inhibition of matrix metalloproteinases (MMPs)
      - inhibition of phospholipase A2
      - reduce irritative free fatty acids and diglycerides by suppressing bacterial lipases
    - oral therapy
      - doxycycline
      - minocycline
  - facial erythema
    - topical metronidazole 0.75% gel
    - topical metronidazole 1% cream
    - azelaic acid gel 15%
      - the only gel approved by FDA for treatment of papulopustular rosacea
  - ulcerative keratitis
    - infectious etiology
    - sterile inflammatory etiology
      - topical corticosteroids
        - used judiciously
  - advanced cases with scarring and neovascularization
    - conservative therapy is generally recommended
  - PK
    - high-risk procedure in rosacea patients
  - light-pulse treatment
    - to reduce eyelid erythema

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