

EYE INFLAMMATION

I. DEFINITION:

Inflammation of the conjunctiva, characterized by redness, swelling and often accompanied by a discharge.

II. ETIOLOGY:

Numerous causative factors:

- A. Bacterial infection: pneumococcus, staph, strep, gonococcus, hemophilus, chlamydia trachomatis, pseudomonas aeruginosa, etc.
- B. Viral infection is most common and is associated with Upper Respiratory Infection (URI), adenovirus, coxsackie and enteroviruses. Transmission is by direct or indirect contact with ocular or upper respiratory tract secretions.
- C. Herpes viruses. Transmission is through direct contact with open sores or saliva or touching other surfaces contaminated by these secretions.
- D. Allergic reaction: associated often with allergic rhinitis.
- E. Foreign body or trauma.
- F. Chemical irritants.
- G. Systemic infection: measles, Rocky Mountain Spotted Fever, etc.
- H. Chlamydia.

III. CLINICAL FEATURES:

- A. Bacterial Conjunctivitis
 - 1. Purulent drainage
 - 2. Crusting or matting of eyelids, especially on awakening may occur
 - 3. Inflamed conjunctiva
 - 4. Swollen lids
 - 5. Itching, burning, or stinging
 - 6. Develops in one eye initially then spreads to other eye within 48 hours
 - 7. Highly contagious
- B. Viral Conjunctivitis
 - 1. General

- a. Usually occurs with upper respiratory tract infection and self-limiting
 - b. Serous (watery) drainage
 - c. Inflamed conjunctiva
 - d. Swollen lids
 - e. Most common cause in children
 - f. Highly contagious
 - g. From contaminate fingers and swimming pool water
2. Hemorrhagic
 - a. Caused by specific virus, enterovirus 70
 - b. Severe inflammation
 - c. Subconjunctival hemorrhage
 - d. Photophobia (sensitivity to light)
- C. Allergic Conjunctivitis
1. Itching (may be intense), tearing, and swelling of the eyes
 2. Watery to viscous stringy discharge
 3. Inflamed conjunctiva
 4. Swollen lids
 5. Usually occurs in both eyes
 6. May occur with symptoms of allergy (itchy nose, sneezing, scratchy throat or asthma)
- D. Conjunctivitis caused by foreign body
1. Tearing
 2. Pain
 3. Inflamed conjunctiva
- E. Chlamydial Conjunctivitis (neonatal)
1. Presents 5-12 days after birth
 2. Watery discharge which slowly becomes purulent
 3. Pneumonitis, rhinitis, vaginitis, and otitis can follow

IV. MANAGEMENT PLAN:

A. General

1. Do not touch eye with bare hands. Viruses can spread through contact with your fingers.
2. Apply cool compresses to relieve itching.
3. Avoid rubbing the eyes.
4. Stress good personal hygiene measures, especially hand washing.
5. Change washcloths, towels, and pillowcases daily. Explain importance of using a second cloth or a fresh corner of the same cloth to clean the second eye.
6. Do not share towels and washcloths with other people.
7. Use warm, moist cloth to remove crusts and exudate from eyes.
8. Instruct in symptoms that need immediate attention (see consultation and referral).
9. Keep eyelids clean by using a damp, clean cloth to wipe from inner to outer part of each eye.
10. Conjunctivitis without fever and without behavioral change generally does not require exclusion from group settings (e.g., child care, school, etc.) unless it prevents the child from participating in normal activities or requires care that is greater than staff can provide.

B. Referral

1. Purulent discharge: Refer to APRN or private physician.
2. All infants under two months of age.
3. Foreign body or trauma to the eye.
4. Pain in the eye(s)
5. Intense redness in the eye(s)
6. Sensitivity to light or blurred vision that does not improve when discharge is wiped from the eye(s)
7. Symptoms that get worse or don't improve after 24 hours
8. Herpetic conjunctivitis should be referred to eye care professional.

C. Follow-up

Determine tracking priority utilizing professional judgment.

REFERENCES:

Nelson's Textbook of Pediatrics, 19th Ed., 2011.

David H. Dorfman MD, K. A. (2008). *Pediatric Ophthalmology in the Emergency Department*. Boston, MA, USA: Elsevier Inc.

Red Book 2015, Recommendations for Inclusion or Exclusion, American Academy of Pediatrics, pp 136-137.

Conjunctivitis (Pink Eye), Treatment, Centers for Disease Control and Prevention. Retrieved electronically August 21, 2017 at <https://www.cdc.gov/conjunctivitis/about/treatment.html>

Conjunctivitis (Pinkeye). Pub Med Health. <https://www.ncbi.nlm.nih.gov/pubmedhealth/PMHT0023527/>.

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