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An Algorithm Approach to Pediatric Diagnosis

Watery Eyes

50

Ganesh Kulkarni

Introduction

Watery eyes is a common pediatric symptom, which is also known as epiphora/lacrimation.

The cause is not always being an emotional upset. It may be due to:

- *Overproduction of tears (lacrimal fluid):* Lacrimation
- *Underdrainage of tears:* Epiphora

Anatomy of the gland: Lacrimal glands—one for each eye—are located on the outer edge of the upper eye, beneath the eyelid, and are the production house for a salty fluid that lubricates the eye with each blink. The moisture from tears helps prevent damage to the cornea, the outer covering of the eyeball, which can become inflamed or irritated if it is dry.

The congenital nasolacrimal duct obstruction at the valve of Hasner is the most common cause of epiphora in children.

Although the tears are meant to be protective, excessive lacrimation leads to watery eyes.

Etiology

Watery eyes could be benign, not needing any treatment.

It can be due to various underlying conditions. Some of the most common causes of epiphora include:

- *Congenital variety:* Congenital dacryoceles/dacryocystitis/nasolacrimal duct obstruction
- Allergies
- Blepharitis
- Dry eyes
- Infections like conjunctivitis or sinusitis
- Styes

- Chalazions
- Entropion
- Eye injuries can also cause epiphora
- Environmental irritants like smoke or air pollution
- Scratched corneas (corneal abrasions)
- Dirt, debris, chemicals, or any foreign object that irritates the eye for long

Types

- *Gustatory epiphora*: It is referred to as crocodile tears. It occurs due to aberrant nerve regeneration.
- *Reflex epiphora*: It is a reactive mechanism of tear production due to irritation/injury to the corneal surface.
- *Obstructive epiphora*: It is caused due to blockage in any part of the lacrimal gland or ductular system.
- *Hypersecretive epiphora*: This is very rare. It occurs due to the excessive production of tears by the lacrimal glands.

Pointers

Pointers include:

- Eye pain
- Red/pink eye
- Heavy and wet eye
- Itchiness
- Cloudy/unclear vision

Red Flag Signs

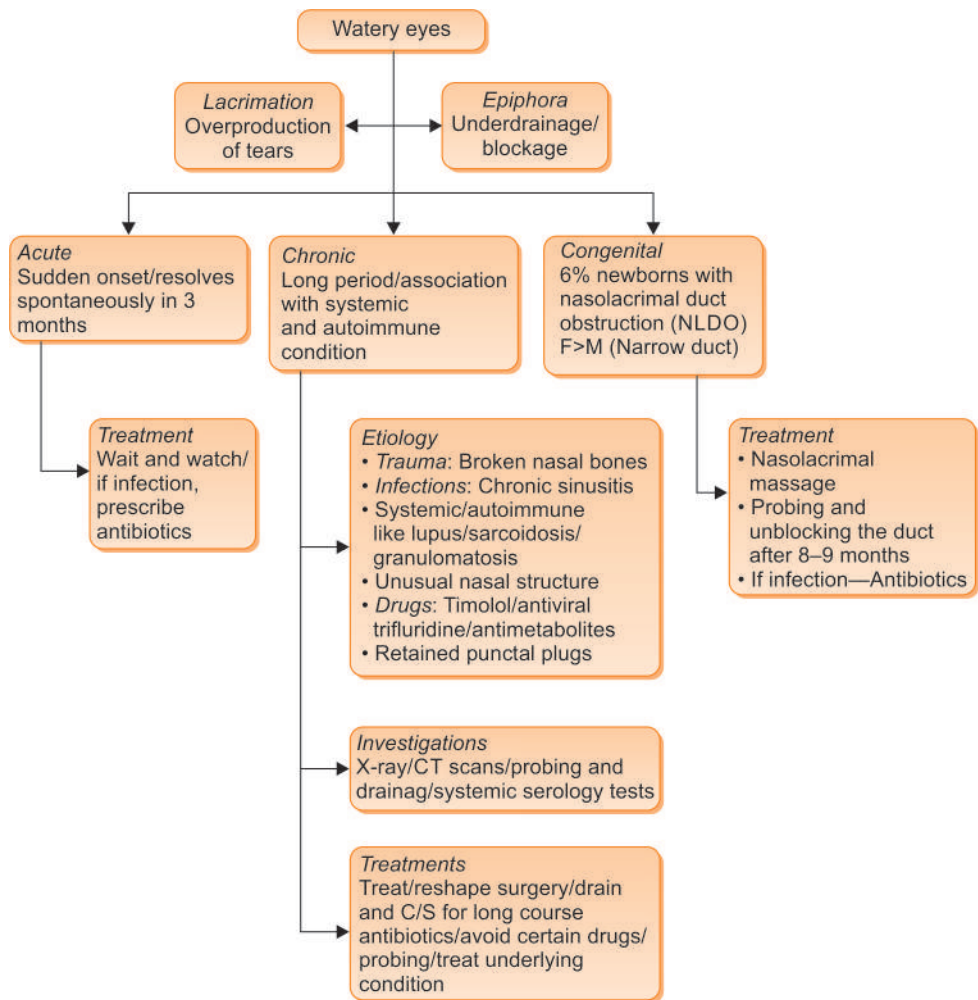
- Pain around eyes
- A foreign body sensation
- Unilateral or bilateral watering of eyes beyond 9–10 months in infants—Chronic dacryocystitis
- Red eye—foreign body or trauma
- Cloudy/unclear vision—corneal abrasion

Diagnostics

These tests will help arrive at the diagnosis:

- Assessment of lid laxity
- Evaluate tear break-up time
- Dye disappearance test
- Probing and drainage

Approach



Suggested Reading

- Cleveland Clinic. (2024). Watery Eyes. [online] Available from <https://my.clevelandclinic.org/health/symptoms/17944-watery-eyes>. Accessed 12/16/2022.
- Merck Manual. (2023) Tearing. [online] Available from <https://www.merckmanuals.com/professional/eye-disorders/symptoms-of-ophthalmologic-disorders/tearing?query=epiphora>. [Last accessed April, 2024].
- Patel J, Levin A, Patel BC. Epiphora. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2024. [online] Available from: <https://www.ncbi.nlm.nih.gov/books/NBK557449/>