Editorial

Watery Eyes

The word “Watering” from the eyes is one of the commonest word which an ophthalmologist hear every day, probably everywhere in the world. It is among the most common lacrimal symptoms. There is a long list of causes, which may be responsible for this, and patients of all ages are affected. One of two reasons; either they produce too many tears or the tears that are produced are not properly drained from the conjunctival sac. In order to find out the cause, where a through knowledge of the anatomy and pathophysiology is required, there a thorough history of the condition is essential to make the distinction between the two possible mechanisms.

A clinician's approach to lacrimal disorders should be logical and organized. Just as neurologic disorders must be carefully localized, so too should lacrimal problems be correctly localized and diagnosed before treatment is implemented. A thorough evaluation of the lacrimal drainage system should begin with the eyes, eyelids, and puncta and terminate with the distal nasolacrimal duct and intranasal passages. Haphazard trial-and-error therapies are to be avoided.

By careful history taking and a thorough examination, causes of hyper secretions are easy to isolate and with appropriate management symptom usually are relieved in short period of time, whereas overflow problems or outflow obstructions need appropriate investigations to find out the site of obstruction.

Two age groups need special attention regarding watering from the eyes. One of them is a neonate and other is an old age patient.

New born who are presented with watering from one or both eyes need special attention. For this age group few facts should be kept in mind. Canalization of epithelial cords, which will form lacrimal cannaliculi, starts at the 4 months of gestation, beginning as scattered patches throughout the system and creating a lumen through the system. This lumen finally breaks through in the nasolacrimal duct to form a continuous opening just before birth. The lower end of the lacrimal duct is the last to canalize, and in more than one half of infants the last portion of this nasolacrimal stem may not completely finalize its patency at birth. During embryonic development, migrations of epithelial cords can cause various anomalies within the lacrimal system.

Neonates have tear secretion at birth, and 96% to 98% have a totally patent and functional lacrimal drainage system. The 2% to 4% who do not have a lacrimal drainage system intact have a thin residual membrane at the distal end of the nasolacrimal duct. This membrane spontaneously dissolves in 80% to 90% of patients within the first few months of life.

Clinical manifestations of congenital nasolacrimal duct obstruction are amniotocele, dacryocystitis and tearing and mattering. Tearing and mattering is the most common and usually manifest at two weeks of age simply having tearing and mucoprulent discharge. Simply topical antibiotic and proper sac compression and massage relieve the problem.

Congenital nasolacrimal duct obstruction has a high rate of spontaneous resolution during the first year, and there is, not surprisingly, some difference of opinion about how early to resort to probing to resolve the situation. Mucopurulent discharge from infection in the collecting system is nearly always present to some degree. It can be lessened with lid hygiene and the application of antibiotic ointments. Pressure over the lacrimal sac usually results in retrograde flow of the sac contents onto the eye, where it can be wiped away. Occasionally the pressure is transmitted hydrostatically down the nasolacrimal duct to open the obstruction with a sudden popping sensation. Failing this, persistent purulent discharge and lid irritation are reasons to proceed with probing. An episode of frank dacryocystitis with swelling and redness in the area of the lacrimal sac is an indication for probing. The dacryocystitis is first treated with systemic antibiotics, but subsequent probing to relieve the obstruction is necessary to prevent recurrence. A special indication for early probing is distention of the lacrimal sac at birth, associated with nasolacrimal duct obstruction and a physiologic canalicular blockage of retrograde flow, the so-called congenital dacryocystocele. Probing should be undertaken in the newborn period rather than later, because secondary infection is likely to develop in the closed system. The

lacrimal puncta and canaliculi are small at this early age, but the inferior canaliculus can usually be dilated and probed to decompress the lacrimal sac, and passing the probe on into the nose can break the distal duct obstruction. Usually it is recommended that where relief is achieved by conservative measures, probing should be delayed till the age 6 to 9 months and in any case probing should be done by experienced ophthalmologist familiar with neonatal anatomy.

In older age group, before deciding for probing and syringing it is very important to give special emphasis to the local adnexal factors such as lid laxity, eversion of puncta, phemosis of the punctums and not to forget the nasal examination. Correction of the adnexal factors relieves most of the symptoms and later probing and syringing further facilitates the flow of tears through the passages. Patency of both upper and lower canalicular system is essential for the proper flow of tears. A traditional teaching that the lower canalicular drainage system was far more important than the upper system. This old wives' tale is completely incorrect. Various studies have demonstrated equal tear flow between the upper and lower canalicular systems using radioactive dacryo-scintigraphy flow studies. Approximately 50% of patients experience mild intermittent symptoms of epiphora associated with experimental monocanalicular obstruction. The symptoms were identical whether patients' upper canalicular system or lower canalicular system was occluded.

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