

Watering of Eye its Cause and Management

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ABSTRACT

Objective: To determine the causes of watering of eye.

Methods: This cross-sectional study was carried out at Ophthalmology OPD of KMC Teaching Hospital Khairpur from January 2016 To June 2016. A total of 315 patients with complain of watering eye were enrolled in the study. Ophthalmic examination with slit lamp and general medical examination was performed, treatment was given and results were calculated.

Results: Out of 315 cases, 211 (66.98%) were female and 104 (33.05%) were male who came to eye OPD for watering eye with age ranging from infant two weeks to 80 years; most common causes found blockage in lacrimal drainage system 46.98%, dry eye 21.26%, punctal stenosis 7.61%, ectropion 6.98%, entropion 6.03%, multiple causes 5.39% and chronic dacryocystitis 5.71%.

Conclusion: Watery eye is common condition with different etiologies with most frequent blockage in lacrimal drainage system, which needs proper management to reduce the disease burden.

Keywords: Watering of Eye, Management, Lacrimation, Epiphora, Dry Eye.

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INTRODUCTION:

Excessive secretions of tears are due to reflex of ocular surface disease like dry eye inflammation or allergy, trauma or corneal foreign body.¹

Epiphora may be caused by punctum occlusion, eyelid abnormalities like ectropion entropion, lid laxity, facial nerve palsy and nasolacrimal duct obstruction (NLOD). Canalization of the nasolacrimal duct (NLD) is usually complete around the time of birth, failure of complete development and opening of the distal aspect of the duct is the most common cause of congenital NLD obstruction at the valve of Hasner at the distal end of the NLD is symptomatic

5% of infant at birth, patency usually occur spontaneously with first few months of life¹

Evaporation accounts for approximately 10% of tears elimination in the young and for 20% or more in elderly person. Most of the tear flow is actively pumped from the tear lake by the action of orbicularis oculi muscle. Blinking pushes the tears from lateral to nasal on the eyelid margin and then the action of the orbicularis muscle on the canaliculi and the lacrimal sac also promotes drainage a weakened interferes with the normal pumping mechanism, contributes to Epiphora in patients with eyelid laxity and seventh cranial nerve paresis. A study showed that 40% of patient who complain for watering were patient of dry eye². When they were treated with lubricant drops watering subsided. Dry eye is a multifactorial inflammatory disease affecting ocular surface. One cause of dry eye was found tear film instability³. In another study meibomitis was the cause of tear film instability leading to epiphora⁴. Dry eye can be divided in to two groups aqueous deficient (ADDE) due to decrease in lacrimal secretion and evaporative (EDE) in which there is excessive evaporation and water loss⁵. Aim of our study was to evaluate cause of watering eye and its management.

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METHODS:

Out of 315 patient, 211 female and 104 male were enrolled in the study, who came to eye OPD of KMC teaching hospital with complaining of watering eye, age ranging from 2 week to 80 years. Patients with trauma of eye and previous history of dacryocystorhinostomy (DCR) surgery were excluded from the study. Study was approved by Khairpur Medical College ethical committee. Brief history and ophthalmic examination with slit lamp and general medical examination was performed. Proper management was given according to causes of watering of eye. All the information was documented in pre-designed questionnaire and analyzed statistically.

RESULTS:

148(46.98%) infant and children were cases of NLDO, 140(94.59%) patient improved after massage and local antibiotics, 8 children needed syringing and probing, 5 improved, while 3 children did not improve. 67(21.26%) dry eye patients improved after treatment, 24(7.61%) patients with punctum stenosis, we did two snip punctoplasty, 22(6.98%) patients with ectropion and 19(6.03%) patients with entropion we did lid surgery, 17(5.39%) patients had multiple causes of watering punctum stenosis and ectropion, 18(5.71%) patients chronic dacryocystitis we did DCR with intubation. Table I shows sex distribution and age distribution and table II causes of watering of eye.

Table I: Demographic Variables

Sex Distribution	No. of Cases	Percentage
Male	104	33.05%
Female	211	69.98%
Age Distribution		
2 Weeks to 6 Months	102	32.40%
7 Months to 12 Months	30	09.50%
13 Months to 18 Months	16	05.70%
50 Years to 80 Years	167	53.01%

Table II: Causes of Watering Eye

Causes	No. of Cases	Percentage
NLDO	148	46.98%
Dry Eye	67	21.26%
Punctal Stenosis	24	7.61%
Ectropion	22	6.98%
Entropion	19	6.03%
Multiple Causes	17	5.39%
Chronic Dacryocystitis	18	5.71%

DISCUSSION:

Watering of the eye is common disease almost all ophthalmologist in their clinic they treat daily 4 to 5 cases. In our study from 315 cases, 148(46.98%) were infant and children with (NLDO). Older patient with watering eye have eye lid abnormalities multiple etiology, dry eye. Nemet et al⁶ showed, relatively high prevalence of eye lid malposition in older patient. In the study of Viso et al⁷ lacrimal out flow obstruction was more common in females than male, women have more common punctual stenosis then men. Woog⁸ study showed 73% females with lacrimal obstruction. Francisco et al⁹ reported that unilateral cases of (NLDO) were more 5:1 and reflex tearing, dry eye and lid abnormalities were often bilateral Shen GL in their study unilateral cases of epiphora were 75% previous studies report 31.8% to 48.7%¹⁰. Mainville and Jordon reported that 40% of patient with epiphora have dry eye. Williams B et al¹¹ states that 22% dry eye patient has Epiphora. Shen GL¹² study states 22% dry eye has Epiphora. Ansari Z et al¹³ states that younger patients have more NLDO while older patients have eye lid abnormalities and ocular surface disease. Mahmut OU et al¹⁴ in their study 48% patient have lacrimal system disease (obstruction) and 38.7% have ocular surface disease like dry eye and blephritis. In current study major cause of watering eye was NLDO 46.98%. As in other studies and second most major cause of watering was dry eye 21.26%. Study conducted by Jae-Ho Shin et al¹⁵ epiphora can affect a broad array of daily activities like working on computer, watching television, driving and reading. Corrective measures for epiphora can

improve vision related quality of life. Study conducted by B Eshrabhi P et al¹⁶ patient with watering eye due to chronic dacryocystitis has risk of infection for possible intraocular surgery, the majority of the microbiologic spectrum of chronic dacryocystitis was Gram +ve which was compatible with the microbiologic spectrum of endophthalmitis. Study conducted by Chairty JL et al¹⁷ in a Veteran Affairs Medical Centre ,there were 29.4% dry eye cases among them 5.7% patient have ocular pain.

CONCLUSION:

Watery eye is common condition with different etiologies with most frequent blockage in lacrimal drainage system, which needs proper management to reduce the disease burden.

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