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Case Report

Involuntary Eye Watering During Micturition: A Case Report and Literature Review

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Abstract

An 11-year-old female presented complaining of bilateral eye watering during urination. An ocular and urinary system examination was normal. This phenomenon has been reported in 5 cases. Our review adds to the theory that this apparently rare phenomenon may be underreported and is more common than previously thought.

Case report

An 11-year-old girl presented to the paediatric ophthalmology clinic via referral from the optician with bilateral eye watering during urination.

The girl and her mother described tears streaming down her face from both eyes each time she urinates; this has been going on for as long as she could remember. It did not occur in any other context and was not associated with any eye or facial redness, pain, or loss of vision. She also reported no dysuria, straining, or haematuria. The patient was otherwise healthy, and there was no family history of any congenital or ophthalmological condition.

The eye watering was not observed during the clinical appointment. Ocular examination revealed good visual acuity in each eye, and a normal appearance of the eyelids and anterior segments with patent puncta and no increased tear meniscus height or overspilling tears. Lacrimal irrigation was not performed due to the asymptomatic presentation in the clinic.

We referred the patient to a general paediatrician for a systemic review and examination, including neurological and genitourinary examination, which revealed no abnormalities. Autonomic testing was not performed. An ultrasound scan of the kidneys, ureter, and bladder was also normal.

Literature review

There are 5 case reports in the literature with similar findings. The main findings from their reports are summarised in Table 1. Due to the apparent rarity of this phenomenon, there is uncertainty in regard to the prevalence. However, there is a possibility that it is underreported due to its relatively benign nature and possible embarrassment associated with presenting to a medical professional. The first reported case was in 1932; however, the epiphora was more significant during defecation than urination, which was not found in our case or any of the other case reports [1].

In 2 cases, the phenomenon was associated with other symptoms, such as facial redness and warmth [2] or a vacant appearance and jaw dropping [3]. Our patient did not experience any other symptoms.

In all cases, the epiphora had existed from childhood, and examination revealed no other abnormality. No other case report reported any past medical conditions, including ours. Interestingly, 5 out of 6 cases (including ours) are female, although the current significance of this is unclear.

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Table 1: Summary of case reports in the literature with similar findings.

Reference	Sex	Age	PMH	Associated symptoms	Therapeutic findings
Hamilton [1]	Male	Not reported	Not reported	Not reported	Response eliminated with atropine injection
Bulwer, et al. [3]	Female	3	None	Occasional vacant look and dropping of jaw	None
Nair, et al. [5]	Female	34	None	None	None
Dos Santos, et al. [2]	Female	4	None	Facial redness and warmth	Response improved with bladder retraining
Mittal, et al. [4]	Female	5	None	None	Response was eliminated with 0.25 mg atropine injection; response improved with bladder retraining.

Treatment has been attempted in 3 cases. In 2, the epiphora was eliminated completely with an intravenous injection of atropine just before urination [1,4]. In one of these cases, a bladder control regime of frequent voiding without the urge of micturition reduced the eye watering in a 5-year-old but did not eliminate it [4]. In 1 further case, a regime of bladder retraining consisting of 2-hour timed voiding, double voiding, and an increase in fluid intake, as well as bowel management with laxatives, markedly improved the watery eye in a 4-year-old [2].

Within this limited dataset, the clear trends that are elucidated are a female preponderance and an onset at a very early age. In all cases, the patients were otherwise healthy, and there was no associated pain, discomfort, or anatomical ocular or genitourinary abnormality. No cases reported a positive family history. In the cases where treatment targeting the parasympathetic nervous system was trialled (atropine and bladder retraining), there was an improvement in symptoms. There is variability in the presence or absence of associated symptoms.

Lacrimation and urination are controlled by the parasympathetic nervous system; a common pathway developing aberrantly in utero may explain this observation. This theory is supported by the marked elimination in response to antimuscarinic treatment. The reduction in symptoms secondary to bladder retraining also suggests an action via reduction of parasympathetic stimulation of the bladder.

Whether active management is necessary will depend heavily on patient preference and any associated distress. Considering the benign nature of this condition, ongoing treatment with atropine would not be justified due to the risk of antimuscarinic side effects. Bladder retraining may be a more acceptable option in patients who are of sufficient age to comply.

The limitations of this report include the limited sample size, lack of long-term follow-up, and the absence of investigations such as atropine testing.

In conclusion, we present the case of an 11-year-old female presenting with painless bilateral tearing during urination with a normal ocular and urinary system examination. In the context of the growing number of reports on this condition, we question whether this phenomenon is underreported.

References

1. Hamilton W. Anomalous lacrimation. Proc Soc Exp Biol Med. 1932;30(2):220-1. Available from: https://doi.org/10.3181/00379727-30-6433

2. Dos Santos J, Varghese A, Farhat W. Urotherapy for tear production with painless urination. Urology. 2015;85(3):667-70. Available from: https://doi.org/10.1016/j.urology.2014.11.023

3. Bulwer C, Hodin M, Mansy S. Watery eyes during urination. Pediatrics. 2012;129(3):e803-5. Available from: https://doi.org/10.1542/peds.2011-0100

4. Mittal M, Rajput S. Congenital linkage of lacrimation with micturition: a wiring defect or just a spillover? Indian Pediatr. 2020;57(4):372-3. Available from: https://pubmed.ncbi.nlm.nih.gov/32284485/

5. Nair AG, Gopinathan I. Micturition associated with painless lacrimation. Int J Urol. 2014;21(12):1293. Available from: https://pubmed.ncbi.nlm.nih.gov/25041522/

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