A Swelling To Cry About

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Introduction

Congenital anomalies of the lacrimal system can cause obstruction and present with epiphora or discharge in the newborn.

Fistulae and diverticula are rarer anomalies and can be asymptomatic if they do not cause obstruction and can go undetected for years.

We report a rare late presentation of a congenital nasolacrimal duct (NLD) anomaly with an unconventional presentation.

Methods

Clinical, Radiological findings and management is presented.

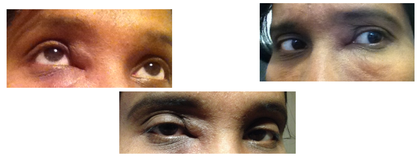


Fig 1: Picture demonstrating the unilateral medial canthal swelling on right or left side

Results

- 49-year-old south Asian female presented with a 2 year history of intermittent swelling of her medial canthal area. Each episode of swelling occurred after crying whilst lying down. Swelling was gravity dependent as it did not occur if she cried while sitting up.
- She had bilateral involvement, but the swelling occurred one eye at a time (Fig1), which resolved spontaneously within 2-3 days.
- Swelling was not associated with redness, discharge, pain or persistent epiphora.
- She had no history of trauma or any other significant past ocular history or systemic history

- Ocular examination was normal and syringing demonstrated bilateral patent nasolacrimal ducts.
- Lacrimal Scintigraphy showed a delay in physiological drainage in both eyes (Fig 2)
- CT Dacrocystography (CT DCG) revealed an anatomical variant with a bilateral bifid proximal nasolacrimal duct originating from the inferior part of the lacrimal sac. Both NLD appeared to split into two separate ducts which re-joined further down after leaving the sac (Fig 3,4) and there was relative stenosis of the distal left NLD

- **Treatment:** As the patients symptoms were episodic which resolved spontaneously, she opted for conservative management. She has not represented with any further swelling.

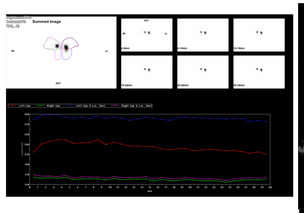


Fig 2: NDGCM showing right sac obstruction and left post-sac obstruction

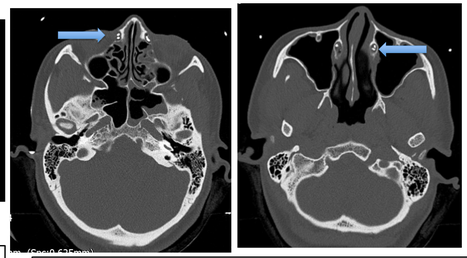


Fig 3:CT DGC showing bilateral bifid nasolacrimal ducts with dye passing through two separate passage on each side

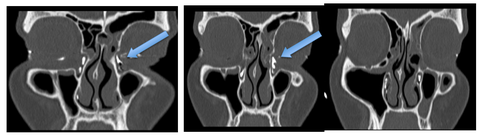


Fig 4: CT DCG showing the anatomical variation from the left lacrimal sac with relative stenosis of the distal left nasolacrimal duct.

Discussion

Congenital anomalies of the lacrimal system include congenital NLD obstruction, dacryocystoceles, congenital lacrimal fistulas and diverticula, congenital anomalies of the puncta including congenital atresia and supernumerary puncta and ectopic canaliculi.

However there have been no reports of a bifid proximal nasolacrimal duct such as the one seen in our patient with an unusual late onset presentation.
The authors speculate that the dependent position whilst crying may reduce the drainage through the bifid NLD which in turn results in stasis of her tears and medial canthal swelling that spontaneously resolves within a few days.

To the author's knowledge, this is the first case of a patient with a bifid proximal NLD and an unusual initial presentation of medial canthal swelling after crying whilst in a dependent position.

References

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