

Congenital dacryocystocele

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DESCRIPTION

Case description

A neonate aged 7 days brought to the eye emergency service with the history of swelling in the lower medial aspect of the left eye since birth (figure 1). The systemically baby was stable without respiratory symptoms. There was an ill-defined reddish cystic swelling with central faint bluish discolouration, rest of the eyelid and ocular examination was normal. Nasal cavity examination was normal; ultrasonography showed well-defined cystic swelling without internal debris, and MRI of the head and orbit revealed well-defined cystic swelling in the lacrimal sac area with collection inside (figure 2). A diagnosis of congenital dacryocystocele was made and advised gentle lacrimal sac massage along with topical moxifloxacin 0.5% eye



Figure 1 A neonate aged 7 days showing reddish swelling below the medial canthal area.

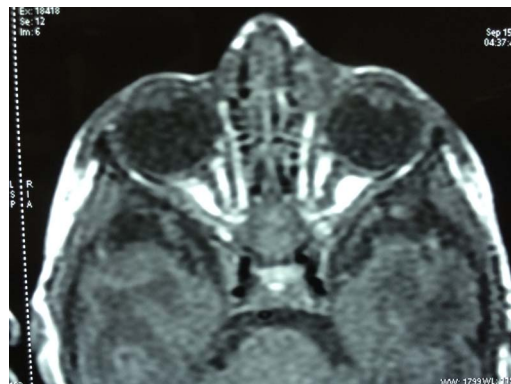


Figure 2 MRI of the orbit showing well-defined cystic swelling in the lacrimal sac area.

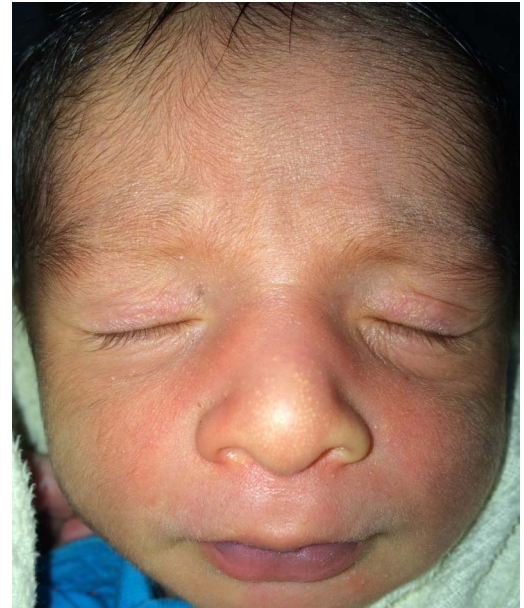


Figure 3 Complete resolution of swelling after 2 weeks of topical antibiotics and lacrimal sac massage.

drops four times. At the end of 2 weeks, there was complete resolution of the swelling without any complications (figure 3). At present, after 3 months, the patient is in follow-up without any lacrimal system symptoms.

DISCUSSION

Congenital dacryocystocele incidence varies from 1% to 12%.¹ Even though congenital dacryocystocele presents inferior to medial canthal tendon, it needs to be differentiated from some of the important clinical conditions which may present at birth or soon after that usually situated below the medial canthal tendon, these include capillary haemangioma, encephalocele, internal angular dermoid, mucocoele, sebaceous cyst and others. Clinical examination of the dacryocystocele will be soft to firm swelling. Although congenital nasolacrimal lacrimonasal duct is common in newborns, but dacryocystocele is uncommon. It is secondary to blockage in the distal end of the nasolacrimal duct leading to a cystic dilation. The diagnosis can be quite challenging based on clinical features because if it is cystic swelling just inferior to the medial canthus, it can be suspected easily, but some cases tend to present with nasal obstruction or respiratory distress in the newborn. A sound clinical observation, periorbital ultrasonography, endoscopic nasal examination and meticulous use of CT or MRI imaging play a key role in diagnosis. Nasal cavity examination is important to rule out any intranasal extension of the swelling or



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deviation of inferior nasal turbinate due to lower part dacryocystocele. The management of a congenital dacryocystocele is controversial; conservative management is usually followed initially which includes lacrimal sac massage, which increases the

hydrostatic pressure within the lacrimal sac in turn leading to drainage of the contents into the nose, warm compresses, topical antibiotic drops and systemic antibiotics to avoid secondary infection.^{2,3} Therapeutic probing is indicated in cases which are not relieved of symptoms by conservative methods and development of dacryocystitis to prevent subsequent preseptal/orbital cellulitis and sepsis.³

Learning points

- ▶ Congenital dacryocystocele is uncommon clinical entity compared congenital nasolacrimal duct obstruction. This particular case shows the importance of systematic evaluation and medical management (lacrimal sac massage and topical medication) for better outcome.
- ▶ Medical management should be tried first under close observation and the patients who are not responding to medical management or development of secondary complications will need therapeutic intervention.

Competing interests None declared.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

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