

Haemolacria as a Presentation of Neonatal Conjunctivitis due to Chlamydia Trachomatis

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Abstract

Neonatal conjunctivitis early in life is usually caused by infection picked up from the Birth canal of the mother. The common venereal infection transmitted from the mother to the child during birth is due to Chlamydia trachomatis, and rarely due to Gonorrhoea and herpes simplex. We present a case of a day-old infant who had blood tinged tears on ocular examination. There were very few signs of conjunctivitis and no obvious ocular or systemic cause to account for the bloody tears. Conjunctival swab revealed infection due to Chlamydia trachomatis. The infection cleared after a two-week course of oral erythromycin. In the absence, of an obvious vascular anomaly or bleeding diathesis, infection due to Chlamydia trachomatis should be considered and investigated in a neonate presenting with bloody tears.

Keywords: Neonatal conjunctivitis; Chlamydia trachomatis; Haemolacria

Introduction

Neonatal conjunctivitis has been reported to occur in 7-19% of all newborns [1,2]. Chlamydia trachomatis is the most common pathogen isolated worldwide in ophthalmia neonatorum, with a prevalence of 3-4 per 1000 live births [3]. Chlamydia trachomatis has overtaken gonococcus as the most common agent in the western world, whereas the latter continues to be a significant problem in the lesser developed countries [4]. We report a case of neonatal conjunctivitis due to Chlamydia trachomatis presenting on the first day of life as bloody tears with very few signs of conjunctivitis.

Case

A day old infant born at term had a routine neonatal check. While changing the napkin, bloodstained meconium was noticed. Systemic examination was unremarkable. While the child was being examined, blood-tinged tears were seen rolling out from the eyes. On ocular examination, except for a mild conjunctival injection, there was no abnormality of note. An antenatal check of the mother was reported as being unremarkable, and the child was born by normal vaginal delivery at term. There was no family history of bleeding diathesis. Blood samples were drawn for full blood count, serum electrolytes and liver function test. Stool samples were sent for culture and sensitivity. Two separate conjunctival swabs were taken, one for routine bacteriological culture and sensitivity test, and the other for Chlamydia trachomatis. The result of the haematological indices was normal for the infant's age. The blood in the stool was attributed to swallowed blood as no abnormality was detected in the investigation. The conjunctival swab was sterile for bacteria but positive for chlamydia trachomatis. The neonate was given a course of oral erythromycin (Dosage 12.5 mg/Kg body four times a day) for 2 weeks. No topical therapy was instituted as it has been found ineffective, to completely

eradicate the infection. A conjunctival swab was repeated a few weeks later, and this was reported as negative. The mother was treated for the genital chlamydial infection, after testing positive for a high cervical swab. A letter was sent to her primary care physician recommending treating her partner for Chlamydial infection, after an investigation.

Discussion

Quellmalz first described conjunctivitis of the newborn in 1750. Neonatal conjunctivitis is one of the most common infections acquired during the first month of life [5]. The infective organism is acquired from the birth canal of the mother, but some may acquire it from their immediate surroundings [6]. Nevertheless, Chlamydia trachomatis is acquired as a venereal infection from the infected birth canal of the mother. Chlamydial conjunctivitis typically presents from the 5th to the 14th day of life but may be delayed and sometimes may even remain asymptomatic [7]. Topical prophylaxis with erythromycin or silver nitrate is ineffective against Chlamydia trachomatis infection [8]. Hence in many countries, antenatal screening and treatment of the mother have superseded postnatal ocular prophylaxis of the newborn [9]. Neonatal conjunctivitis due to chlamydia is initially unilateral, but often becomes bilateral in two-thirds of cases. The presentation of neonatal chlamydial infection of the eye ranges from mild to severe conjunctival hyperaemia, lid swelling, purulent discharge, and corneal involvement and sometimes it can even lead to a pseudomembrane formation in the conjunctiva [7]. Whereas gonococcal conjunctivitis can have a fulminant course and can progress very rapidly to blindness in the early days of life [10]. Fortunately, infection due to gonococcus is becoming uncommon in the western world. It is unusual to diagnose chlamydial infection of the eye on the first day of a neonate and more so with a bloody tear. In adults' bloody tears from the eye have been reported in patients on anticoagulants therapy, a malignancy of the lacrimal sac, vascular malformations like orbital varix, and hereditary haemorrhagic telangiectasias [11-13]. However, in the paediatric age group, there have been few reports in the literature on bloody tears, but the aetiology could not be discerned in these cases [14,15]. To the best

of our knowledge, this is the first case report of Chlamydia trachomatis infection of the eye presenting on the first day of life as bloody tears.

Conclusion

In the absence of an obvious vascular anomaly or bleeding diathesis, infection due to Chlamydia trachomatis should be considered and ruled out by relevant investigation in a neonate presenting with bloody tears, even in the absence of significant signs of conjunctivitis.

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