



A RARE CASE OF ACUTE HEMORRHAGIC CONJUNCTIVITIS IN A NEWBORN: A CASE REPORT

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ABSTRACT

The purpose of this publication is to highlight the clinical spectrum and management of acute hemorrhagic conjunctivitis in minimal resource settings. Acute hemorrhagic conjunctivitis is a highly contagious ocular infection characterized by lid edema, blood-stained discharge, pain, and subconjunctival hemorrhage. Most common causes are infections with chlamydia trachomatis, coxsackie virus A-24, gonococcal infections.

KEYWORDS : Hemorrhagic conjunctivitis, Bloody discharge from eye, Blood-stained tears

INTRODUCTION

Neonatal conjunctivitis also known as ophthalmia neonatorum is the inflammation of the conjunctiva usually during the first month of life.¹ It can be caused by either septic (bacterial or viral) or aseptic due to silver nitrate used as topical agent for preventing infection in newborn. Septic causes are usually self-limiting except for Chlamydia and Neisseria gonorrhoea.² High institutional deliveries and prenatal check-up and treatments has reduced the incidence of neonatal conjunctivitis.^{3,4}

Neonatal conjunctivitis caused by Chlamydial is very difficult to identify due to the special requirement for growth medium. Now, Chlamydia trachomatis is the most frequent cause of neonatal conjunctivitis in the United States.⁵

Early diagnosis and prompt antibiotic treatment of chlamydial conjunctivitis are important if ocular complications are to be minimised, but these remain a challenge for physicians. Further, hemorrhagic eye discharge in a newborn usually indicates an infective cause.⁶ Acute hemorrhagic conjunctivitis presents with lid edema, conjunctival edema, pain, and bloody discharge from eyes.⁷ The main causes known to cause hemorrhagic conjunctivitis are bacterial(chlamydia) and viral (enterovirus A20, echovirus).^{8,9} Therefore, the nature of discharge is a major clue to diagnosis. Most of the cases are mild and self-limited, but occasionally may be severe with eyelid swelling, chemosis, papillary reaction, pseudo-membrane, peripheral pannus, corneal involvement and hemorrhage.⁸ Treatment may be empirically started on history and examination. History of STI in mother should be taken to rule out chlamydial infections. Complications such as corneal perforation, blindness may be prevented by early initiation of treatment.

Clinical Case

A term newborn presented to ophthalmology clinic on day 20 of life with the history of blood-stained discharge from eyes since day 10 of life and lid edema. The antenatal history was insignificant. There was history of whitish discharge per vagina in the mother. The newborn was home delivered and had received birth dose vaccinations. There was no history of any chemical exposure to eyes. There was no history of rapid breathing, fever, refusal of feed. There was no history of any prior treatment for the eye condition. Local examination of both eyes there was lid edema, bloody discharge from eyes, pain, and conjunctival edema. (figure-Ia and Ib)



Figure 1a

Figure 1b

Figure 1a shows Eye lid chemosis along with blood stain tears from both the eyes and Figure 1b eyelid retractor shows conjunctival hyperemia and clear cornea.

Child was sent to the pediatrician for thorough systemic examination. Gynecological consultation was also taken for mother. Systemic examination of the child and mother was normal. Conjunctival swab and scrapping from the eye of the child was sent for gram and culture staining. Empirical antibiotics topical were started keeping possibilities of Acute hemorrhagic conjunctivitis secondary to chlamydial infection in view of blood-stained tears and history of vaginal discharge in mother, viral conjunctivitis (less likely). Therefore, standard therapy with oral azithromycin (20mg/kg) OD for 3 days along with topical administration of azithromycin ointment. The child improved after therapy of 1 week (Fig II). Culture reports of swab was sterile where as scrapping suggested Chlamydia Trachomatous which was sensitive to azithromycin.

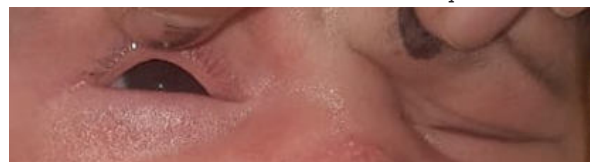


Fig - II Shows resolution of periorbital edema and conjunctival hyperemia after full course of antibiotic therapy

CONCLUSION

The most common organism cultured from neonates with acute conjunctivitis is Staphylococcus aureus, but its role in neonatal conjunctivitis remains controversial as it is also most common organism cultures from asymptomatic neonates.¹⁰ Chlamydia trachomatis is the second most common causative organism in acute neonatal conjunctivitis. Chlamydia trachomatis is an obligate gram negative, intracellular bacterium that lacks the ability to reproduce independently. It can only reproduce within the host cells. It is always pathogenic and is not part of the normal flora of the urogenital tract although urogenital infection is often asymptomatic.¹¹

In neonates, many other sites may be inoculated with chlamydia during normal vaginal delivery. Such sites are eyes, nasopharynx, rectum, and vagina. Definite diagnosis can be made only by isolating the organism in tissue culture because this obligate intracellular organism to be cultured in a medium containing epithelial cells, not just exudate.² Acquisition occurs in about 50% of neonates born vaginally to infected mothers.^{3,6} The risk of conjunctivitis is 25% to 50% and of pneumonia, 5% to 20%.¹³ Pregnant women may be asymptomatic, or present with vaginal leucorrhoea, puerperal endometritis, miscarriage, or preterm labour.¹² Neonatal hemorrhagic conjunctivitis characterized by lid edema,

bloody discharge from eyes, pain and conjunctival edema. The most common causes are chlamydia, bacterial and viral (enterovirus A20, echovirus). The history and clinical examination are important for the early treatment of this condition to prevent complications such as corneal perforations, blindness, chlamydial pneumonia.

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