

CASE REPORT

GNOCOCCAL OPHTHALMIA NEONATORUM: A RARE CASE REPORT IN THIS ANTIBIOTIC ERA

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HOW TO CITE THIS ARTICLE:

Pooja Jain, Naveen Saxena. "Gonococcal Ophthalmia Neonatorum: A Rare Case Report in this Antibiotic Era". Journal of Evolution of Medical and Dental Sciences 2015; Vol. 4, Issue 53, July 02; Page: 9276-9278, DOI: 10.14260/jemds/2015/1347

ABSTRACT: This is the first case report on gonococcal ophthalmia neonatorum at, MBS (Maharao Bhim Singh) Hospital, Kota. Apart from *N. gonorrhoea*, a variety of organisms are implicated in ophthalmia neonatorum-*Chlamydia trachomatis*, *Staphylococci*, *Streptococci*, Gram negative coliforms, *Candida* spp. and herpes simplex virus. The incidence of gonococcal ophthalmia neonatorum in this antibiotic era is less than 1%^(1,2) So it is one of the rare cases for this institution in this antibiotic era.

KEYWORDS: Gonococcal, Conjunctivitis.

INTRODUCTION:

CASE REPORT: A two day old female infant presented with history of bilateral mucopurulent discharge from eyes, redness, and severe periorbital swelling with oedematous eyelids.

Her mother a 30yr old female delivered via normal vaginal delivery. As per antenatal protocol TORCH, HIV, HBsAg, VDRL test were done. Results were negative. Her delivery and post-partum course was also uncomplicated.

Conjunctival swab from baby was taken for microbiological investigations. Gram staining and culture was performed. This was requested urgently as there was suspicion of gonococcal conjunctivitis. Diagnosis of ocular infection with *N. gonorrhoeae* was made following identification of intracellular gram negative, diplococci on gram stain confirmed by culture of Conjunctival swabs on Chocolate agar and a selective medium like modified Thayer Martin medium. Culture was incubated at 35-36°C under 5-10% CO₂. *N. gonorrhoeae* was confirmed by oxidase positivity. It also ferments glucose with acid only. It does not ferment maltose.

Findings were cross checked by taking the endocervical swab of mother sent for Gram staining and culture examination with antibiotic sensitivity. As the findings from cervical swab of mother were similar to Conjunctival swab of baby, it was confirmed that baby had acquired infection from birth canal. The baby was treated with 1% silver nitrate solution and she showed improvement in two days. Mother was found sensitive to ceftriaxone, doxycycline and ciprofloxacin.



Fig. 1

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Fig. 2

DISCUSSION: Ophthalmia neonatorum is the most common ocular disease in the newborn, occurring in 2-12%^(3,4,5) of neonates. The mode of infectious transmission is believed to be acquisition during passage through a colonized or infected birth canal.^(4,5) While nearly every bacterial species has been implicated, ocular infection with *Neisseria gonorrhoeae* is felt to be one of the most serious because of its potential to damage vision and cause blindness.^(4,3) The incubation period for *N. gonorrhoeae* is 2-5 days (Sometimes longer) with the appearance of symptoms seen from birth to beyond 5 days of age. Beginning with a mild inflammation and serosanguinous drainage, gonococcal ophthalmia soon results in thick, profuse purulent discharge and tense eyelid edema with marked chemosis (Swelling of the conjunctiva).^(5,6) Shortly after birth, ophthalmic prophylaxis for gonorrhea should be administered to all infants, including those delivered by cesarean section since ascending infection can occur. Two drops of a 1% silver nitrate solution or a 1 cm ribbon of antibiotic ointment (0.5% erythromycin or 1 % tetracycline) are applied to each lower conjunctival sac. The eyes should not be flushed or irrigated.⁽⁷⁾ Without prompt treatment, *N. gonorrhoeae* ocular infection may spread to the deeper layers of the conjunctiva and cornea.^(5,6) Corneal ulceration and perforation, iridocyclitis, anterior synechiae, and panophthalmitis from untreated gonococcal ophthalmitis may result in permanent vision loss and blindness.^(4,8,9)

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FINANCIAL OR OTHER

COMPETING INTERESTS: None

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Date of Submission: 12/06/2015.
Date of Peer Review: 13/06/2015.
Date of Acceptance: 26/06/2015.
Date of Publishing: 02/07/2015.