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Neonatal conjunctivitis: Are we missing the target?

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Purpose: To evaluate etiology and in vitro efficacy of commercially available topical antibiotics for neonatal conjunctivitis.

Methods: We retrospectively reviewed charts of all patients with neonatal conjunctivitis who underwent laboratory investigation of conjunctival samples, at the Department of Ophthalmology, Federal University of São Paulo from Sep/2002 to Sep/2005. Data regarding previous therapy, laboratory work-up, age at the onset of symptoms, bacterial cultures, susceptibility results (tobramycin, ciprofloxacin, gatifloxacin, moxifloxacin, ofloxacin, and chloramphenicol), and chlamydial antigen detection were collected. Proportional variables were evaluated with Chi-square or Fisher exact test, as appropriate. Logistic regression was applied to assess possible predictors of chlamydial etiology (negative bacterial cultures, onset after 5 days, and samples collected after 15 days of .age). All tests were analyzed at a significance level of .05.

Results: One hundred and thirty-five patients were included. Median age was 7 days (range 0-28) at the onset of symptoms and 15 days (range 0-30) at the time of sample collection. Bacterial cultures and immunofluorescence for Chlamydia were performed in 81.5% and 66.6% of the patients, respectively. Bacteria were recovered from 77.3% of the samples. The most common isolates were coagulase-negative Staphylococcus (CNS) (47.9%), Staphylococcus aureus (18.5%), and Haemophilus sp (6.7%). The percentage of CNS strains resistant to tobramycin (38.3%) was significantly higher when compared to ciprofloxacin (5.0%), gatifloxacin (0.0%), moxifloxacin (0.0%), ofloxacin (1.7%), and chloramphenicol(10.0%). Chlamydial antigens were detected in 75.0% of samples that underwent immunofluorescence and none of the studied predictors were associated with this etiology.

Conclusion: The majority of neonatal conjunctivitis was caused by Chlamydia. Age at the onset of symptoms cannot predict this etiology, which should be considered even when bacterial cultures are positive. .