( ) R1 (X) R2 ( ) R3 ( ) PG0 ( ) PG1 ( ) Estagiário ( ) Tecnólogo ( ) PIBIC Last Name - Kara José First Name - Andrea Middle - Cotait

Service (sector) Cornea and External Disease Nº CEP

USE CONDITIONS AND CONTAMINATION IN BORIC ACID

(Kara-José, A.C., Branco, B.C., Ohkawara, L.E., Yu, M.C.Z., Höfling-Lima, A.L.). Department of Ophthalmology, Federal University of São Paulo, Brazil.

Purpose: To evaluate boric acid use conditions and detect contamination of bottles of boric acid and their solutions. Methods: Forty-two patients who were using boric acid solution and who came to the Ophthalmology Emergency Room of Sao Paulo Hospital from February to March of 2003 were randomly recruited. A questionnaire was handed to the users. Cultures were taken from material of conjunctival sac, inner surface of the bottle edge, inner part of the cap and from 1 ml of boric acid of each bottle. Results: Of the 42 boric acid bottles, 17 (40.5%) were contaminated: 1 (2.4%) in its solution, 17 (40.5%) in the inner cap and 6 (14.3%) in the inner part of the bottle edge. Most of the contaminated bottle caps (58.8%) were handled inappropriately and many of the users did not discharge the bottles after use. The most common microorganisms found in the caps and edges were Staphylococcus sp (69.6%), followed by Gram positive bacillus (26.1%). In the acid boric solution, the bacterium found was S. aureus. Bacteria of all cultured conjunctivae were isolated. Of the 42 bottles, 16 (38.1%) had been opened for more than a month, 5 of those (31.1%) showing contamination. Of the 26 bottles which had been opened for less than a month, 6 (23.1%) were contaminated. The directions on the boric acid bottles showed on the labels are incomplete and not clear. There was no correlation between agents contaminating boric acid bottles and those contaminating user's conjunctivae. Recommendation of boric acid was on their own, of friends or of relatives in 26 cases (61.9%); pharmacists in 8 cases (19.0%), ophthalmologists in 5 cases (11.9%) and general practitioners in 3 cases (7.1%). Conclusions: Contamination was shown in 40.5% of boric acid bottles and in 2.4% of the solution used by patients who came to the Ophthalmology Emergency Room of São Paulo Hospital. Most of the users of boric acid (58.8%) did not handle the bottle caps properly and many of them did not discharge the bottles after use. The directions of boric acid use on bottle labels are not clear. We could not demonstrate positive correlation between microorganisms contaminating boric acid bottles and those contaminating user's conjunctivae. There was no correlation between time of use of boric acid and contamination of bottles and solution. The use of acid boric was recommended by non-physicians in 80.9% of the cases and by ophthalmologists in 11.9%.