The recommended use of pH Neutral is a safe procedure

Several studies and case reports have shown a correlation between frequently administrating phosphate buffer in injured eyes and corneal calcification [1,2,3,4]. This fact has led some to recommend avoidance of phosphate buffer also for initial rinsing of eyes [3,4], even though no scientific study supporting this has been performed [5].

pH Neutral produced by Plum A/S is a phosphate buffer, and thus we feel responsible for documenting that pH Neutral used for initial rinsing is not combined with the side effects in question.

Thus, Plum A/S has, in the cooperation with University of Southern Denmark and Odense university Hospital, performed a controlled, clinical study investigating whether the use of pH Neutral in the recommended way is combined with corneal calcification.

Our study resembles that of Schrage et al [1] where 16 eye injured rabbits were either treated with phosphate buffer or saline solution. This study investigated the prolonged use of phosphate, as the rabbits were treated three times a day for 16 days with phosphate buffer. The study showed that the rabbits in the phosphate group developed corneal calcification [1].

In contrast to the study by Schrage et al [1] our study investigates the initial rinsing with phosphate buffer in injured eyes of 20 rabbits. We have actually strictly followed the Plum recommendation in acid/alkali eye burns: 2 minutes rinsing with pH Neutral followed by rinsing with saline (Plum eye wash). Otherwise our study design resembles that by Schrage et al [1] in several aspects; the burning agent (1N NaOH), the exposure time (30 sec), and the fact that rinsing is initiated immediately after the burn.

The result of our study clearly shows that corneal calcification does not appear in the pH Neutral treated rabbits. Thus, the results document that initial rinsing with phosphate buffer in injured eyes is not combined with corneal calcification.

The study was performed in fall 2008 and the publication of our results is ongoing at the moment.

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