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On the Use of Ophthalmic Ointment to Prevent Corneal Abrasions during General Anesthesia

To the Editor:—In their report on the use of ophthalmic preparations during general anesthesia, Siffring and Poulton¹ note a high incidence of blurred vision and decreased visual acuity after the use of petroleum-based ointments. The authors conclude that ophthalmic ointments should be avoided for routine short procedures. They maintain that their omission will not compromise safety.

Siffring and Poulton did not detect any corneal abrasions in the 127 patients studied. This complication appears to be a rare but extremely painful one.² Corneal abrasions have been noted after surgery even when the patient has been supine and the surgical field was not in proximity to the head. The problems noted would be considered minor if corneal abrasions were prevented by the ointment. To evaluate the efficacy of a technique to prevent corneal injuries, a large number of cases would be needed. In the absence of such a study, I plan to continue the routine use of ophthalmic ointment, as has been advocated.^{2,3}

Siffring and Poulton have confirmed a previous investigation⁴ which concluded that “. . . ointment is retained on the eye longer than other vehicles.”² This property may be precisely the one which will decrease the chance of a corneal abrasion occurring during gen-

eral anesthesia, since the production of tears is decreased during anesthesia⁵ and eyes may open even when they are thought to be securely taped shut.

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In Reply:—In our report on the prevention of ophthalmic complications during general anesthesia, we did not detect any corneal abrasions in the 127 patients studied. A large sample size would be optimal to detect this rare complication, as has been suggested by Dr. Sosis. However, it is debatable whether the risk of application of ointment is warranted in procedures where the chance of corneal abrasion is low (*i.e.*, procedures of short duration, in the supine position and not involving the head). It should be noted that the use of ophthalmic ointments during general anesthesia does not preclude corneal abrasion. They can occur during the application of ointment to the eye. They may also occur as a direct result of foreign material contained in the oint-

ment. It has been noted by Dr. Sosis that ointment is retained in the eye longer; however, it must be reapplied every 90 min, allowing for an additional risk of corneal abrasion with reapplication.

In our study, we focused on anesthetic procedures of short duration with the patient in the supine position in surgeries not involving the head. We concluded that the elimination of the routine use of ointments for these procedures is reasonable in that no complications were noted, and that patients observed a significant decrease in postoperative visual complaints when compared to those using ointments. This factor may be significant in light of the increasing number of outpatient procedures. The elimination of ointments during long-term