CORRESPONDENCE

In Reply.—We appreciate the opportunity of responding to Dr. Levy's critique of our study design. Briefly, he suggests that the statistical analysis of our ECG data may have been invalidated by our failure to make a positive exercise-ECG response a criterion for admission to our study. His assumption is that patients with negative stress ECGs could not subsequently develop ischemic ST segment depression during anesthesia and surgery. We do not feel that that is a valid assumption. First, the two types of "stress" are not comparable. Secondly, a patient's exercise response may be limited by factors such as fatigue, respiratory disease, claudication, and patient cooperation. These factors are not operative in the anesthetized patient.

Assuming, for purposes of argument, that there were some validity to Dr. Levy's assumption, the process of randomization should have distributed patients with "negative" tests equally among the three treatment groups. Assuming an incidence of negative tests of up to 30% does not alter the significance of our results as long as the patients with negative tests are distributed equally among treatment groups. Only when one assumes, as Dr. Levy has done, that patients with negative tests would be confined almost exclusively to the metocurine and metocurine-pancuronium groups does the actual P value slightly exceed 0.050. Such hypothetical considerations should not alter the way in which an informed reader interprets the results of our study.

We cannot report on the distribution of negative stress tests in our study because our patients were not systematically stressed according to a rigid protocol during the period immediately preceding surgery. We will not be instituting such a program as part of future investigations.

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Anesthetic Management of Patients with AIDS

To the Editor.—Several reports on the risk of acquired immune deficiency syndrome (AIDS) in health-care workers have appeared recently.* In a recent report on 300 health-care workers who worked with AIDS patients at San Francisco General Hospital no cases of AIDS were reported.† Seventy-five per cent of these workers had been caring for AIDS patients for more than 1 yr. More than one-third of those interviewed had been exposed to contaminated fluids, and 89 had accidentally punctured their skin with a needle from an AIDS patient.

Although the AIDS virus does not seem extremely virulent based on this information, we recognize that the disease has a relatively long incubation time (possibly 5 yr), and that data on transmissibility of AIDS is still being accumulated. Two cases of probable HTLV/LAV transmission to a health-care worker by exposure to blood products have been reported in this country.* While transmission of the virus is extremely rare (two cases of 1,785 workers studied), measures for the protection of health-care workers must be taken. At the same time, this must be balanced by concern with maintaining a rational and empathetic physician–patient relationship.

The Centers for Disease Control (CDC) has provided guidelines for the protection of health-care workers,‡ although little information directly related to anesthesia is available. AIDS patients who come to surgery at San Francisco General Hospital are treated using precautions

Surgical specimens are marked with "H/A precautions" ("hepatitis" or "has AIDS") labels and placed in plastic bags with the label attached to the outside. Surgeons use disposable drapes and gowns that are put into standard "contaminated material" bags. At the end of the procedure, instruments are cleaned and sterilized in the usual way. The room is cleaned with a dilute (1:10) solution of 5.25% sodium hypochlorite (bleach) to which the virus is sensitive. Care is taken not to spill undiluted bleach, which generates fumes when it reacts with protein.

Postoperatively, patients who are not to be ventilated mechanically are extubated in the operating room. AIDS patients are brought to a section of the recovery room reserved for patients with communicable diseases. A nurse assigned to an AIDS patient does not take care of another patient at the same time. The recovery room staff observes the same precautions as operating room personnel.

Because anesthesiologists are usually involved in cardiopulmonary resuscitation (CPR), appropriate protection during CPR must be available. Masks, gloves, and glasses should be worn as in the operating room. Mouth-to-mouth resuscitation is avoided. While a variety of protective airway devices are available, early endotracheal intubation is the safest technique for both the patient and resuscitator.

We hope that our recommendations will provide rational guidelines for other hospitals to follow so that health care workers may be adequately protected and able to treat these patients with appropriate caution and concern.

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From the History of Anesthesia in Military Surgery

To the Editor:—I wish to correct a statement made by Aldrete et al.1 They state, "Previous publications have reported the initial wartime use of anesthesia for surgery as occurring in either the Crimean or German–Danish conflicts after 1848."

Actually, it was used in the summer of 1847, just after July 8, in the Caucasus War by the Russian surgeon Proff. Nicolay Pirogov.2

In the Mexican–American War (spring 1847), the use of ether anesthesia was occasional. Pirogov has reported more than 100 surgical operations in war situations in which ether anesthesia was used.

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