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### Epidural Anesthesia and Analgesia in High-risk Surgical Patients. IV.

*To the Editor:*—In the recent report by Yeager *et al.*,<sup>1</sup> the study was terminated because “the overall complication rate and complication intensity were strikingly higher in group II patients.” It seems that the more ethical course would have been to continue the data gathering to make the study even more persuasive by virtue of larger numbers. Since these data would indicate that common present practice may be deficient, it seems to me that terminating the study for the stated reason is indefensible.

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### Epidural Anesthesia and Analgesia in High-risk Surgical Patients. V.

*To the Editor:*—Drs. Yeager, Glass, Neff, and Brinck-Johnsen are to be commended in their attempt to compare the outcome of two fundamentally different anesthetic techniques in high-risk surgical patients.<sup>1</sup>

Key to the interpretation of outcome is the claim that the two study groups were similar. Despite the fact that patients were randomly assigned to the two treatment groups, it is quite possible that, by chance alone, group II included a few extra high-risk patients compared to group I. This dissimilarity could account for some of the differences in outcome rather than anesthetic technique.

In Yeager *et al.*'s study, the most important comparisons of patient characteristics are the ASA physical status classification and the Goldman index, as indicated in their Table 1. I am not sure the statistics used are valid. What is an ASA physical status of 2.79 ( $\pm 0.55$ ) or

a Goldman Index of 9.1 ( $\pm 6.8$ )? The ASA physical status classification and the Goldman Index meet the definition of ordinal data, since they represent categories which can be ranked.<sup>2</sup> The numbers are nothing more than a form of shorthand for groups defined clinically,<sup>3</sup> and, although they can be ranked, the “distance” between any two groups or classes may be variable.<sup>2</sup> An ASA physical status or a Goldman Index could easily be given a letter instead of a number. The numbers do not come from a set of continuous data, and it is inappropriate to calculate means, standard deviations, and *P* values using these numbers.<sup>3</sup> Because of this, the reader cannot be sure that group II did not include several more high-risk patients compared to group I.

The authors should present their data so that we can compare the number of high-risk patients having high-