

Editorial Views

Anesthesiology
51:193-194, 1979

Mortality among Anesthesiologists

MORTALITY AND MORBIDITY statistics in the United States estimate the occurrence of 390,000 new cases of occupational disease each year. As many as 100,000 deaths may be considered directly attributable to occupational hazards of the workplace.¹ That serious occupational risks are associated with the chemical industry, construction work, law enforcement agencies, etc., comes as no surprise. Less evident are the significant health hazards associated with the practice of anesthesia. Recent epidemiologic studies document increased spontaneous abortion, hepatic and renal diseases, ulcerative colitis, and migraine among anesthesiologists and an increased incidence of congenital abnormalities among their offspring.^{2,3}

While leading causes of death among male anesthesiologists in order of frequency are cardiovascular disease, cancer and suicide, it is the high incidence of deaths from suicide, three times greater than the control value, that is astonishing.⁴ This high suicide rate is certainly a matter of serious concern, and deserves careful investigation.

Although previous studies indicate that the incidence of cancer among living male anesthesiologists is similar to the control value, female anesthesiologists may be at greater risk. Reported data suggest their cancer rate to be approximately twice that of the control female pediatrician group.² This observation is of particular interest in view of the long-term exposure of anesthesiologists to waste gases in the operating room and the indication that 80 to 90 per cent of all cancer is probably of environmental origin.¹ On the other hand, a cause-effect relationship associating this female hazard with exposure to anesthetics has not been confirmed, and animal experimental cancer data have proven negative.⁵ Whether these inconsistencies reflect species variation, the relatively small female population base in reported epidemiologic studies, or the even smaller data base for animal investigations remains undefined.

The study of mortality among anesthesiologists by E. A. Lew, appearing in this issue of ANESTHESIOLOGY, provides a contribution to our knowledge. Designed and conducted by the American Cancer Society, this study represents a thorough investigation of the causes of death among the membership of the American Society of Anesthesiologists. It is encouraging that these data do not indicate an overall increased death rate among male or female anesthesiologists. In fact, the figures suggest both death rates to be less than control, although the differences are not statistically significant. The study also serves to confirm several important findings observed in earlier epidemiologic studies. Thus, the high rate of suicide reported earlier among male anesthesiologists is again noted. Although one cannot directly compare cancer incidences and cancer death rates, the present study's failure to demonstrate an increased cancer death rate among male anesthesiologists is consistent with similar negative findings for an increased cancer incidence in living male anesthesiologists reported previously.^{2,3} Somewhat less secure are the data obtained regarding cancer death rates among female anesthesiologists. Although the present American Cancer Society study suggests the overall death rate among these women to be favorable, the data base is admittedly very small. Reported in the present study, however, are figures indicating that 15 of 33 female deaths were cancer-caused. This cancer death rate among female anesthesiologists approximates 45 per cent, which is two times greater than that reported for male anesthesiologists in the same study. At face value, these data would support the suggested twofold increase in the incidence of female cancer in female anesthesiologists reported earlier.² Further data are obviously needed. Most important, additional prospective studies should be encouraged to investigate the etiology of the disturbingly high suicide rate reported among male anesthesiologists.

ELLIS N. COHEN, M.D.
Professor of Anesthesia
Department of Anesthesia
Stanford University School of Medicine
Stanford, California 94305

References

1. Ashford NA: Crisis in the Workplace: Occupational Disease and Injury. Cambridge, M.I.T. Press, 1976
2. Cohen EN, Brown BW, Bruce DL: Occupational disease among operating room personnel: A national study. *ANESTHESIOLOGY* 41:321-340, 1974
3. Spence AA, Cohen EN, Brown BW, et al: Occupational hazards for operating room-based physicians. *JAMA* 238:955-959, 1977
4. Bruce DL, Eide KA, Smith NJ, et al: A prospective survey of anesthesiologist mortality 1967-1971. *ANESTHESIOLOGY* 41:71-74, 1974
5. Eger EI II, White AE, Brown CL, et al: A test of the carcinogenicity of enflurane, isoflurane, halothane, methoxyflurane, and nitrous oxide in mice. *Anesth Analg (Cleve)* 57:678-694, 1978

Anesthesiology
51:194, 1979

A Renewed Venture

WITH THIS ISSUE, each of the 25,000 subscribers to *ANESTHESIOLOGY* received a bonus copy, entitled "Abstract Supplement, Abstracts of Scientific Papers, 1979 Annual Meeting, American Society of Anesthesiologists." This supplement contains the abstracts of the scientific papers, both oral and poster type, that will be presented at this year's meeting of the American Society of Anesthesiologists (ASA) in San Francisco. Appropriate subcommittees of the ASA selected these abstracts from all of the offerings as being worthy of presentation at the scientific program.

Publication of this supplement is a renewed venture for *ANESTHESIOLOGY*, albeit in a markedly different format. In 1957 and without fanfare, the Editors of *ANESTHESIOLOGY* added to the Journal a section entitled "Work in Progress," which contained abstracts of scientific papers presented under the same heading at the previous annual meeting of the ASA. This section appeared yearly in essentially the same format for the next 13 years. In 1970, and without formal announcement in the Journal, this section was discontinued. The reasons for this action were several, most notably the fact that since the abstracts appeared in the January-February issue following the Fall ASA meeting, abstracts and the completed manuscripts often appeared in the same or sequential issues.

Since 1970, a number of changes have occurred both in *ANESTHESIOLOGY* and in the structure and content of the ASA annual meeting that made the idea of reviving publication of the annual meeting abstracts attractive to the Editorial Board of *ANESTHESIOLOGY*. The advantages to ASA members and other subscribers of *ANESTHESIOLOGY* of publishing the abstracts as a supplement to the September issue are substantial. First, all ASA members will now receive a copy of the abstracts, instead of only those who attend the annual meeting of the ASA. Second, all

ASA members will receive their abstract supplement sufficiently in advance to be able to review it before attending the annual meeting. Third, the supplement is included in subscription mailings to all major world libraries and hence is available to a much broader segment of readers than would otherwise be possible. Fourth, and as a consequence of the third advantage, this action permits both authors and readers legitimately to cite the abstracts as references in bibliographies or curriculum vitae. Such citations are of little or no value when the abstracts have limited distribution. And finally, the abstracts will be indexed in *Index Medicus*, and hence more easily retrieved for future reference.

It should be acknowledged that publication of this supplement has not been free of moil for the authors or the Editorial Board. The authors of abstracts have had to adhere to instructions that in practice were not crystal-clear. Of course, this will be rectified. Less easily resolved is the matter of editing abstracts before publication so as to maintain uniformly high standards of quality in content, style and grammar. Because time constraints and publication costs preclude any substantial editing of abstracts by the Editorial Board, *ANESTHESIOLOGY* must rely on authors to use sound scientific logic, good judgment and good English in the preparation of their abstracts.

The Editorial Board of *ANESTHESIOLOGY* would like to acknowledge the substantial support and help of the Chairman and members of the 1978 Section on Annual Meeting, the officers of the American Society of Anesthesiologists, the staff at ASA headquarters in Park Ridge, Illinois, and the publisher, J. B. Lippincott Company in the planning and implementation of this renewed venture. Time and reader acceptance will ultimately determine its success.

C. PHILIP LARSON, JR., M.D.
Editor-in-Chief
ANESTHESIOLOGY

Key words: ANESTHESIOLOGY.