Letters to the Editor

On *On*: Pro and Con

Sir:

I had always thought your running titles were a charmingly archaic way of suggesting a definitive treatise on some topic the authors knew more about than anyone else, rather like St. Augustine's *On Original Sin* or Morgagni's *On the Seats and Causes of Disease.* Now that Dr. Luke has pointed out the humor in coupling surnames and drugs with *on* (see January 1978 Letter to the Editor), I hope I will not be thought presumptuous if I raise a question about the aptness of the running titles accompanying the article by Raven et al in the same issue (Vol. 23, No. 1, January 1978, pp. 116-128).

As best I can make out, Dr. Raven and her co-workers have described some interesting morphological findings in a small, selected group of infants apparently dying from bronchiolitis and related diseases. Am I being uncharitable in asking what these findings have to do with the sudden infant death syndrome as most of us now know it? It seems to me a little too procrustean not to mention confusing to see these cases so classified.

You may lightheartedly say: What's a little confusion amongst friends? Isn't it all part of life's rich tapestry to which we all contribute our small bit of weaving?

My response would be: Yes, of course, a little uncertain weaving is acceptable in ordinary conversation, and probably tolerable—perhaps even the norm—at a friendly AAFS meeting, but shouldn't the standards for published papers be a little higher? How can we rely on articles in fields we know nothing about if those we do know something about are suspect?

Kenneth H. Mueller, M.D.
Forensic Pathology Division
Armed Forces Institute of Pathology
Washington, D.C. 20306

Sir:

As a long-time fellow of AAFS and senior author of the paper referred to (January 1978, pp. 116-128), I am constrained to reply to Dr. Mueller's critique.

I admire Dr. Mueller's rhetoric, which to me was strong enough to fell the marchers in Illinois, the demonstrators against "certain" book stores, and the proponents of the "right to live" groups. I could not find the word "procrustean" in my small dictionary, except for "crust," defined as crusty, hard, and insolent. However, my neighbor's encyclopedia defined "Procrustean" as one who is ruthless and who violently brings about conformity, while "Procrustes" was a Giant of Attica who tied travelers to an iron bed, stretched them to fit, and even cut off digits for those oversize.

I am sure that the quiet, meek Dr. Sam Rosen, director of the Pulmonary Pathology Division at the Armed Forces Institute of Pathology, with whom I served while on army tour, and our consultant, Dr. Averil Liebow, would have been cowed into submission as was I by such rhetoric. We did not then (World War II and the Korean War) have a Division of Forensic Pathology, but we did have a fine Department of Immunohistochemistry. It was then that Dr. Alfred Golden reported on his studies of atypical pneumonia [*1*]. It was during that period that the Armed Services Board on Acute Respiratory Disease made the monumental contributions toward the isolation of respiratory viruses and the use of vaccines. The history makes fascinating reading.

Perhaps we neglected to emphasize that the victims discussed in the publication were in fact sudden infant death syndrome (SIDS) victims by generally accepted definition,

which is now being modified, however. A workshop sponsored by the National Institute of Child Health and Human Development discussing the causes of SIDS (*NIH Record*, 30 Nov. 1977) stated that SIDS is not caused by a single mechanism acting at one moment in time as previously believed and that "there is now general consensus of those working on the problem that SIDS babies are not the healthy infants before death that they were once believed to be." However, we are still carried away by our zeal, just as one medical-examiner-counselor (funded under PL 93-270, the SIDS Act of 1974, Information and Counseling Project), who crossed the county boundary to tell the family that their infant did not die of pneumonia, but of SIDS, and then insisted that the pathologist alter the death certificate. This is one of our cases in which the respiratory syncytial virus antigen was demonstrated by the indirect fluorescent antibody method.

But levity to the contrary, I agree that our paper should have been more "down to earth" for those who have not been following the literature and developments, especially in the field of immunology and the relationship to disease processes [*2,3*]. Ours was a preliminary presentation. Dr. Mueller, please be patient; there is more to come! I may just mention here a letter-commentary, written by our late and most revered forensic scientist, Alexander S. Wiener [*4*], who shortly before his demise published a comment beginning as follows: "This letter presents a new theory of adaptive antibody formation and a hypothesis to account for 'Crib Deaths' in infants 2 to 5 months of age."

And, finally, let me say that "Raven *on* SIDS" is not inappropriate. A number of weeks ago, Colonel J. E. Ash, the venerable U.S. Army gentleman-pathologist, my former commanding officer at the AFIP, wrote "Clara, do your colleagues still think that you are 'nuts' on SIDS?" After 20 years of perseverance, I do believe I am!

Clara Raven, M.D.
Deputy Chief Medical Examiner
of Wayne County, Emeritus

References

[*1*] Dreisin, R. B., Schwarz, M. I., Theofilopoulos, A. N., and Stanford, R. E., "Circulating Immune Complexes in the Idiopathic Interstitial Pneumonias," *New England Journal of Medicine*, Vol. 298, No. 7, 1978, pp. 353-357.

[*2*] Miller, F., "Applications of Immunology to Understanding Mechanisms of Human Disease," *Federation Proceedings*, Vol. 34, No. 8, July 1975, pp. 1645-1650.

[*3*] Cochrane, C. G. and Koffler, D., "Immune Complex Disease in Experimental Animals and Man," in *Advances in Immunology*, Vol. 16, F. J. Dixon and H. G. Kunkel, Eds., Academic Press, New York, 1973, pp. 185-264.

[*4*] Wiener, A. S., "Theory of Adaptive Antibody Formation and 'Crib Death,' " *Annals of Internal Medicine*, Vol. 81, No. 2, Feb. 1974, p. 266.

Sir:

The substantive comments in Dr. Mueller's letter concern (1) whether the cases in our study (Raven et al, Vol. 23, No. 1, Jan. 1978, pp. 116-128) are bona fide SIDS victims and (2) his inability to perceive the significance of bound IgG in victims' lungs.

A current working definition of SIDS is "the sudden death of any infant or young child, which is unexpected by history, and in which a thorough postmortem examination fails to demonstrate an adequate cause for death." This designation is tentative and does not imply that significant pathology will never be found. In absence of known cause or mechanism of disease, it is difficult to designate all microscopic pathologic alterations adequate to cause death, yet in each case there is a cause of death. However, there is also a distinctive epidemiology and clinical setting for these deaths.

In the cases of our study, the cause of death was officially designated by medical examiners as SIDS. The majority of these, from Wayne County, were part of a much larger

group with this diagnosis. A thorough study (W. S. Burnett, "A Study to Delineate Some Common Factors Among a Group of Children Who Died Unexpectedly," Ph.D. dissertation, University of Michigan, Ann Arbor) of that group revealed characteristic epidemiology much like that found with cases in other urban areas where other postmortem examinations designated SIDS as cause of death.

The presence of bound IgG in SIDS victims' lungs indicates the presence of a foreign antigen in the lungs and antibody to that antigen in postmortem serum of the victim. Under circumstances of antigen excess, the postmortem serum of the victim should react with his own lung in vitro and might or might not react with lungs of other victims. This can be determined experimentally.

Thus, the significance of the presence of IgG would be to indicate a pathologic process in the lung or other tissues and to allow the determination of whether there is a common foreign antigen in all SIDS victims or whether there are different foreign antigens. In the latter case, it would be possible to determine the number. This would lead to a more specific definition of SIDS and be an important step in the identification of the foreign antigen not only in postmortem material but in the surviving contacts.

Since this rationale of our work represents so many speculative projections, it was not spelled out in the preliminary publication. I would like to emphasize that these findings are not necessarily in conflict with other theories of causation currently being investigated. As in many well-understood diseases, there may be multiple causes, each essential but none sufficient.

W. Wilbur Ackermann, Ph.D.
Professor of Epidemiology
University of Michigan
Ann Arbor, Mich. 48109

Metric Conversions

Sir:

The *Journal of Forensic Sciences* has made commendable efforts to convert to the International System (SI) of measurements. This letter is prompted by the phrase (on page 143 of Vol. 23, No. 1, Jan. 1978), "Some 102 by 127-mm (4 by 5-in.) cards." I believe that 4 by 5 cards, in common with "2 by 4's" used in building construction and "1-in. pipes," are covered by Section 3.4.3 of "Standard for Metric Practice" (American Society for Testing and Materials E 380-76; Institute of Electrical and Electronics Engineers 268-1976; American National Standards Institute Z 210.1). These are *nominal* dimensions; they *name* but do not *measure* the item. The sense of the referenced rule is that such names may remain unchanged. Metric conversions are *required* only if one applies a ruler or whatever is appropriate to the item and attempts to give its true dimensions. I am inclined to believe, although this may be borderline, that a revolver with a "2-in." barrel is also more of a type designation than an accurate measurement (51 mm), which is usually not that important. Perhaps these comments will make life a little easier for all of us.

G. M. Wolten
The Aerospace Corporation
P.O. Box 92957
Los Angeles, Calif. 90009

Sir:

I am writing this letter in regard to an article, of which I was the coauthor and which was recently published in the *Journal of Forensic Sciences* ("Gunshot Wounds: Visual and

Analytical Procedures," Vol. 23, No. 2, April 1968, pp. 361-367). On page 362, the proofreaders, employed by the American Society for Testing and Materials, in an attempt to convert to the International System (SI) of measurements, have converted my caliber designation of .32 Special to 8.1-mm. In addition, they referred to the .22 rimfire cartridge as a 5.5-mm. This conversion was done in spite of the fact that I had informed the publishers that such direct translation of caliber from inches to millimetres is not possible. There are two reasons for this. First, caliber designation is nominal. Thus, the .38 Special bullet is really 0.359 in. in diameter. The second reason that such literal translation is incorrect has to do with the fact that the metric designation of cartridges is very specific. This is based not only on the diameter of the bullet, but also on the length of the cartridge case. Thus, the 30-30 and 30-06 both have .308 bullets. The 30-30, however, is designated as 7.62×51 Rmm, while the 30-06 is 7.62×63 mm. The numbers 51 and 63 refer to the length of the respective cartridge cases, while R indicates the 30-30 as a rimmed round.

In conclusion, I might say that while the effort of the *Journal of Forensic Sciences* to convert to the International System of measurement is commendable, I would suggest that they be sure of their facts before going off "half-cocked."

Thank you.

Vincent J. M. DiMaio, M.D.
Southwestern Institute of Forensic Sciences at Dallas
5230 Medical Center Drive
Dallas, Tex. 75235

We agree with Dr. Wolten that "4 by 5" cards will never be called "102 by 127" cards and that perhaps we are a bit overzealous in our "consciousness-raising." The "Standard for Metric Practice" does, however, cite several examples where accurate SI conversions should be given to define the nominal item. "Nominal" and "measured" sometimes overlap; for example, "3 by 5" cards got that name because they really do measure 3 by 5 in. (although not with ±0.0001-in. accuracy).

Accurately measured caliber (inches) can be converted into millimetres, and the "Standard for Metric Practice" provides a conversion factor. We were not aware that caliber designations expressed in English customary units are not accurate measurements but are merely approximations, and therefore Dr. DiMaio's original instructions were misinterpreted. We apologize for any confusion arising from inaccurate conversions, and we welcome information that assists us in maintaining a "high-caliber" publication.

R. T. Horstman
Senior assistant editor, ASTM

Discussion of "On Being a Good Expert Witness in a Criminal Case"

Sir:

In my opinion, congratulations should be extended to J. D. Kogan for the well done and long overdue article, "On Being a Good Expert Witness in a Criminal Case" (Vol. 23, No. 1, Jan. 1978, pp. 190-200).

Allen M. Jones, M.D.
Associate Medical Investigator
Office of the Medical Investigator
School of Medicine
The University of New Mexico
Albuquerque, N. Mex. 87131