Pressure Measurements with a Safe and Reliable Catheter-Tip Micromanometer

To the Editor:

The recently published study by Falsetti et al. is a very significant contribution to the analysis and correction of pressure wave distortion in fluid-filled catheter-manometer systems and I completely agree that it is worthwhile to attempt to improve the performance of this type of system for measuring left ventricular pressure, especially in human subjects. However, I disagree with their statement that catheter-tip pressure transducers in general are expensive and fragile and that they exhibit DC electrical drift. These remarks are true for most tip transducers, especially the Statham P-866 to which they make reference, but they do not apply to the Millar micromanometer which is manufactured and marketed by Millar Instruments, Inc., Houston, Texas.

I have used Millar catheter-tip micromanometers routinely in the animal experiment laboratory for approximately four years and in the human cardiac catheterization laboratory for one year, and they have performed without breakage or baseline drift. Also, they are priced relative to the fluid-filled pressure transducers. The results from this study were recently reported in the February issue of Biomedical Engineering.

In all the studies with the Millar micromanometer, I have never had the tip break loose from the catheter as has been reported for the Statham P-866.

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The authors reply:

To the Editor:

We wish to thank Dr. Nichols for his comments on our paper. We are encouraged that his experience with the Millar catheter tip pressure transducer catheter has been favorable. As Dr. Nichols is aware, experience with other commercially available catheter tip transducers has not been as favorable.

We are hopeful that with advanced technology, catheter tip transducers will be further improved and will replace the currently used fluid-filled catheter systems.

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Surgical Mortality Statistics

To the Editor:

Four reports in the January and February 1974 issues of Circulation underscore the need for a standard reporting method for surgical mortality rates. In these four reports, surgical mortality following coronary artery bypass grafting is considered as that occurring: up to two months after surgery, within four weeks of operation, during the same admission as the operation, and within twenty-four hours of operation. Last year's cardiovascular surgery supplement to Circulation demonstrates the same perplexing variability in definition of operative mortality. Although two groups used the common definition of hospital mortality, two groups felt that thirty-day mortality was more appropriate. One group felt that it was unnecessary to define operative mortality. Finally, one group reported an "operative" mortality equal to zero and then stated that five percent of their patients died while still in hospital. Since the definition of "late" deaths is directly coupled to the definition of operative mortality, the articles are equally variable in this regard.

References

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