communications to the editor

Communications for this section will be published as space and priorities permit. The comments should not exceed 350 words in length, with a maximum of five references; one figure or table can be printed. Exceptions may occur under particular circumstances. Contributions may include comments on articles published in this periodical, or they may be reports of unique educational character. Specific permission to publish should be cited in a covering letter or appended as a postscript.

High Frequency, High Volume Ventilation for Right Ventricular Assist

To the Editor:

The recent paper by Serra et al (Chest 1988; 93:1035-37) adds significant additional evidence that cardiac output (CO) in low cardiac output states can be improved with high frequency ventilation (HFV). The author used large tidal volumes and speculated that synchronization with the EKG may further improve CO.

In 1977 Klain and Smith 1 described cardiovascular effects of HFV in dogs. At ventilator rates between 100 and 200 bpm, each jet inflation increased the blood return to the left side of the heart, as documented by peaks in the pulmonary wedge pressure waveform reflecting left atrial pressures. Mean wedge pressure did not increase. At the same time, variations in pulmonary artery pressure waveform occurred showing the effects of pulmonary counter pulsation. An increase in CO was found at ventilator rates between 180 and 200 bpm.

In 1987, Pinsky et al 2 compared the hemodynamic effects of synchronous and random increases in intratracheal pressure (ITP) using HFV in the cardiac cycle in patients with congestive cardiomyopathy. The patients were also ventilated with IPPB. ITP was equal with the three modes of ventilation. Cardiac output was greater with synchronous HFV than with IPPV or asynchronous HFV (4.5 ± 0.7 L/min compared with 3.5 ± 0.7 and 3.4 ± 0.6 L/min, respectively). CO improved by approximately 30 percent in synchronized HFV. The patients all had severe cardiomyopathy and were candidates for cardiac transplantation.

The types of patients in the studies of Serra et al and Pinsky et al were different and possibly the high tidal volumes were necessary in the three pediatric patients with severe tetralogy of Fallot and one double-outlet right ventricle. In the study by Pinsky et al, tidal volumes were low. Further work needs to be done to find the optimal tidal volume (intrathoracic pressure) in various forms of low cardiac output states.

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REFERENCES
1 Klain M, Smith RB. High frequency percutaneous transtracheal jet ventilation. Crit Care Med 1977; 5:280-87

AAHSO and the KAI to OOF

To the Editor:

The decision to institute a Key Abbreviation Index (KAI) with each article in Chest is laudatory. Abbreviations and acronyms have contributed to an increased obscuranism/obfuscation factor (OOF) in medical texts in recent years. As pointed out in the editorial, ”Alphabet Soup Reheated,” Chest 1988; 94:679-80 the use of abbreviations and acronyms is more likely to grow than to go away; therefore, more and more readers will experience OOF.

The KAI will be doubly appreciated by those identified with the new and burgeoning field of acronym hermeneutics (AH). Recognizing the problem posed by OOF, a small group of medical authors founded the discipline of AH to foster a deeper understanding of the acronym’s place in medical literature. We recently have formed the Association for Acronym Hermeneutics and Semiotic Onomasticism (AAHSO), and solicit members from any interested readers of Chest.

James L. Breeling,
Director, Division of Education,
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Park Ridge, IL

Mycobacteriosis in Patients with AIDS

To the Editor:

Fournier and associates 1 reported their experience with a large population of patients with acquired immunodeficiency syndrome (AIDS) in the Miami area. They provide an interesting clinical and demographic comparison between 20 patients with Mycobacterium tuberculosis and 36 with positive cultures for Mycobacteria other than tuberculosis (MOTT). With a less homogeneous referral base, we have noted similar findings for Mycobacterium tuberculosis; however, our conclusions concerning MOTT differ.

We reported results of MOTT cultures from all sources at the time of 36 fiberoptic bronchosopies and followed the clinical course, all subsequent MOTT cultures, histology and autopsy findings. When pulmonary MOTT cultures are positive, we agree.

A. Jorge Serra, M.D.,
The Medical Center of Delaware,
Newark

To the Editor:

We appreciated Dr. Brian Smith's comments regarding our paper, "High Frequency, High Volume Ventilation for Right Ventricular Assist". In our clinical experience we have manipulated all parameters of ventilation and, in this particular subset of patients with severe right ventricular failure, high frequency ventilation using high tidal volumes was the most beneficial. Synchronization of airway pressure with arterial pulse optimized hemodynamics.

It is possible, as suggested by Dr. Smith, that differences in the patient's pathology may explain some disparity in the results.

We are grateful for Dr. Smith's comments and input in this field.

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