PREFACE

Most critical care practitioners are familiar with the frustration encountered when caring for patients with acute respiratory distress syndrome (ARDS). For many years, no new therapies in ARDS proved efficacious. Despite this somewhat depressing fact, there were reports in the literature of decreasing mortality in patients with ARDS. The question surfaced: Why is the survival of our patients with ARDS improving although no new therapies with proven efficacy in ARDS patients have become available? Perhaps, our overall strategies in caring for critically ill patients have improved, that is, better infection surveillance, more rapid attention to resuscitation, and improved techniques and vigilance for prophylaxis against secondary problems such as stress ulcers, deep venous thrombosis (DVT), and nosocomial pneumonias. Then, along came the ARDSnet trial (discussed in this issue), which demonstrated a survival benefit, using a low tidal volume strategy for mechanical ventilation, in patients with ARDS. This was the first trial that demonstrated our ability, as critical care practitioners, to improve patient survival in ARDS. Given this important milestone in the treatment of patients with ARDS and ongoing investigations for other treatment modalities, it seems important to examine and review the various strategies for managing patients with ARDS.

In this issue of *Critical Care Clinics*, newer management strategies, investigational and standard, are reviewed. Strategies for mechanical ventilation, including low tidal volume strategies, prone positioning, high-frequency oscillation, and the concept of optimal positive end-expiratory pressure (PEEP) are discussed. In addition, the alterations in tissue perfusion, so common in ARDS and seemingly resistant to successful intervention, are discussed in several articles on monitoring, cellular energetics, and multiorgan failure. As the search for effective therapeutic agents continues, steroids, inhaled nitric oxide and other immunotherapies are reviewed in detail. If survival in patients with ARDS is, in fact, improving, then it is important to take another look at some of the aspects of bedside care that may make a difference in outcomes, such as prevention of nosocomial infections. Finally, there is an excellent discussion of future therapies in ARDS that we might use someday in patients with this illness so commonly seen in critical care.

This issue covers the range of management strategies—some now standard, some proven, some disproved, and several under investigation—in ARDS and a discussion of those waiting to be found.

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