EDITORIAL

Acute lung injury and ventilator-associated pneumonia: introduction

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Acute lung injury and ventilator-associated pneumonia are recurrent, never ending issues for critical care physicians. Not astonishing though that the editors of this supplement are interested one in the field of mechanical ventilation, the other in infectious diseases. There is no doubt that these two areas of knowledge, are central pillars of modern critical care medicine. The goal of this supplement is to review the current understanding of the mechanisms behind acute lung injury, strategies for its treatment, and prevention and management of ventilator-associated pneumonia, one of the most worrying complications occurring during mechanical ventilation. What is rare, however, is to have such an equilibrated marriage like this in a single supplement of a scientific journal.

When planning the outline of this Supplement, we tried to keep a balance among basic science, pathophysiology, and clinical issues including prevention, diagnosis and treatment. When deciding the topics, we chose a dual approach: the novelty and the essentials. Authors are well known specialists in their respective fields, and have provided state-of-the-art articles which every respiratory physician and intensivist should know.

This publication begins with a series of articles by J.D. Ricard and C. Delclaux who discuss the role of inflammatory

mediators and the concept of ventilator-induced lung injury. P.P. Terragni and his colleagues contribution focuses on the role of respiratory system mechanics. J.C. Richard, J.J. Rouby, I. Moran, A. Vieillard-Baron and L. Gattinoni follow with descriptions of new advances and/or interventions increasing our knowledge of acute lung injury: pressure/volume curves, lung computed tomography, recruitment manoeuvres, dynamic hyperinflation and the distinction between primary and secondary acute respiratory distress syndrome. Next, G.U. Meduri and M. Antonelli discuss two therapeutic issues: corticosteroids and noninvasive ventilation. The publication concludes with articles by E. Girou and J.Y. Fagon, dealing with diagnosis, prevention and treatment of ventilator-associated pneumonia.

As the editors of this supplement we are extremely grateful to R. Rodriguez-Roisin, who approached us to undertake this job, and of course all the authors who have provided outstanding reviews for each subject. Authors have put their talent, effort and time into accomplishing their commitments. The substance of this supplement follows in the next pages. We do not wish to comment about the contents. This is the readers' job. We do hope that the readers of the *European Respiratory Journal* find this Supplement a valuable one.

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