Preface

Hospital-acquired pneumonia: European perspective

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Guest Editor

Hospital-acquired pneumonia is the second most frequent nosocomial infection accounting for a high mortality. Its incidence ranges from 3 to 7 cases per 1000 hospital discharges depending on the type of hospital (nonteaching versus teaching hospital) and the population studied. In mechanically ventilated patients this nosocomial infection is particularly important because one out of four patients ventilated for more than 48 hours may develop pneumonia. In this population the average incidence is 25%. In some specific populations, such as ARDS and comatose patients, the incidence may reach up to 50%. Nosocomial pneumonia doubtlessly increases mortality and morbidity. Attributable mortality is 50% in ventilated patients.

Hospital-acquired pneumonia has been a matter of interest of clinical investigators in the last 15 years. A lot of our understanding comes from studies performed in Europe, particularly in France, Spain, and The Netherlands. During these years new concepts in epidemiology, pathogenesis, diagnosis, treatment, and prevention have been learned. The results of observational, randomized trials and postmortem studies undertaken in Europe have modified clinical practice leading to a better management of patients with hospital-acquired pneumonia. In this issue of Infectious Disease Clinics of North America, the European perspective of hospital-acquired pneumonia is reviewed by the most experienced investigators in the field.

Dr. Jordi Rello and colleagues review the current concepts of epidemiology with special emphasis on risk factors for specific microorganisms, concepts that are very useful for an adequate empiric treatment.
The complicated etiopathogenesis is reviewed in depth by Dr. Neus Fábregas and colleagues. Postmortem studies performed in pigs and humans have clarified the particular pathology of ventilator-associated pneumonia and its complicated relationship with microbial etiology. Different points of view on diagnosis are reviewed in two different articles written by Dr. Charles-Hugo Marquette and Dr. Jean Yves Fagon. The point of view from Dr. Marquette and colleagues is based more on the findings of postmortem studies, whereas Dr. Fagon incorporates information on randomized trials. Prevention of hospital-acquired pneumonia is an issue of extreme importance that has been addressed in clinical randomized trials in the last 10 years. Despite these rigorous studies, very few measures have remained unequivocal as effective in preventing nosocomial pneumonia. Dr. Marc Bonten and his team are the most experienced clinical investigators in prevention. Body position, selective digestive decontamination, subglottic aspiration, and other measures are examined by Dr. Bonten and colleagues.

From 20% to 50% of patients with hospital-acquired pneumonia do not respond adequately to empirical antibiotic treatment and this population is a target for medical intervention aimed to decrease mortality. The revision of the causes and potential mechanisms related to nonresponse is presented by Dr. Santiago Ewig, Dr. Malina Ioanas, and the Guest Editor.

Immunosuppressed patients are frequent in the hospital arena and these patients are very susceptible to acquiring nosocomial pneumonia. Classically, these patients have not been included in the literature on hospital-acquired pneumonia. In this issue, Dr. Carles Agustí and colleagues, experts on pulmonary complications in immunosuppressed patients, give important information reviewing in-depth this subset of hospitalized patients.

Treatment of hospital-acquired pneumonia is a complicated issue. Empirical and adjusted treatment and its ideal duration are summarized by Dr. Jean Chastre. The new information about the duration of treatment is of great interest. Other not frequently reviewed aspects of the treatment, such as pharmacodynamic-pharmacokinetic aspects and novel antibiotics, are summarized by Dr. Harmut Lode and Dr. Andrés de Roux.

In the present issue one finds the most novel and interesting topics on hospital-acquired pneumonia given by European clinical investigators. It is hoped that their contributions provide readers with a clear vision of this frequent nosocomial infection.

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