Single versus combination antibiotic therapy in adults hospitalised with community-acquired pneumonia

We read with interest the recent paper by Rodrigo et al., who reported that adding a macrolide to the antibiotic regimen in patients with community-acquired pneumonia (CAP) resulted in lower mortality. Their data are very promising. However, we have a concern about the recommendations to implement macrolides as standard treatment for CAP. We agree with Brown and Hill, who stated in their editorial that adding a macrolide might result in an increased risk of complications and might encourage antibiotic resistance. Furthermore, they mention that it is difficult to explain how the addition of a macrolide improves survival.

Rodrigo, Brown and Hill suggest that randomised controlled trials should be performed comparing β-lactam/macrolide combination therapy with single-agent therapy. In 2005 we published the results of just such a study in Thorax. In our study, there was no difference in outcome between the two treatment strategies among non-ICU admitted patients. However, in ICU-admitted patients the death rate was significantly higher in the group of patients receiving β-lactam/macrolide combination therapy. A possible explanation for this remarkable finding is that in some of these patients death was inevitable despite appropriate treatment. Furthermore, this study was not powered to evaluate the outcome among ICU patients. In all patients we had performed extensive microbiological investigations, including bronchoscopy in cases of mechanical ventilation. In 82% of the ICU patients we identified a pathogen. In view of these results, we would like to state that adding a macrolide to an antibiotic regimen does not always result in a better outcome in non-ICU and ICU patients and furthermore, potentially increases the rate of microbial resistance owing to antibiotic overuse. We think that more attention should be paid to performing extensive microbiological investigations in hospitalised patients and to adaptation of antibiotic treatment when possible.

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