

Editorial



Wanted: The Best Second Option to Treat Macrolide-Unresponsive Mycoplasmal Pneumonia in Children

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► See the article “Therapeutic Efficacy and Safety of Prolonged Macrolide, Corticosteroid, Doxycycline, and Levofloxacin against Macrolide-Unresponsive Mycoplasma pneumoniae Pneumonia in Children” in volume 33, e268.

Mycoplasma pneumoniae is a major pathogen of community-acquired pneumonia in children and adolescents. Physicians may know the treatment of choice for childhood mycoplasmal pneumonia is macrolides.¹ However, recently we have experienced so many beyond-textbook cases, i.e., macrolide-unresponsive mycoplasmal pneumonia.² There have been many studies explaining why we should encounter these embarrassing patients: the most well-known is that the clever pathogens already acquired resistance by 23S rRNA mutation.³

Treating adult mycoplasmal infection, we have tetracyclines and quinolones as alternative antibiotic choices other than macrolides, but these are not recommended for use in children due to their potential side effects such as teeth staining and joint destruction, respectively. As the immune response of host is considered as an important mechanism of pathogenesis in symptomatic mycoplasmal infection, corticosteroids could readily be used in the management of severe pediatric cases, although their various side effects are also very well known: metabolic imbalance, growth disturbance, immunosuppression, and so on. Besides, there have been a few reports supporting beneficial clinical effect of immunomodulation, in other words, immunosuppression of corticosteroid in refractory mycoplasmal pneumonia in children.⁴

To date, however, second-line treatment of choice is not determined in the pediatric clinical setting where macrolides are not working. In this issue, Ha et al.⁵ reported the therapeutic efficacy comparisons among prolonged macrolide use, corticosteroids, doxycycline, and levofloxacin in the management of mycoplasmal pneumonia in children who had fever for more than 3 days even after macrolide treatment. In this retrospective clinical case based study, among the secondary treatment regimen groups (corticosteroids, doxycycline, and levofloxacin), the time to defervescence (TTD) was shortest in the corticosteroid treatment group. In addition, no side effects of these secondary regimens were found in this study. So, this study could reduce the hesitance of clinicians to prescribe corticosteroids. However, the TTD of each treatment regimen since the initial macrolide administration was not significantly different.

For firmer data to support the use of corticosteroid and/or other management regimen in mycoplasmal pneumonia in children, research should be performed in a prospective, blind manner, and with a more accurate diagnostic measure - another challenge in clinical studies dealing with childhood mycoplasmal infection.

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