

Characteristics and Outcomes of Mycoplasma pneumoniae pneumonia associated with pulmonary embolism and necrotizing pneumonia in children

Chenlu Wang¹, Lanxin Li¹, Gang Xiao¹, Yuanyuan Chen¹, Yingshuo Wang¹, Zhimin Chen¹, and Yunlian Zhou¹

¹Zhejiang University

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Abstract

Background: This study aimed to explore the clinical characteristics and management of mycoplasma pneumoniae pneumonia (MPP) combined with pulmonary embolism (PE) in children and gain a better understanding of the diagnosis treatment and prognosis of the disease. **Methods:** We retrospectively reviewed the medical records of 16 children who were diagnosed with MPP associated with PE and NP between January 2016 and January 2023 at Children's Hospital, Zhejiang University School of Medicine. **Results:** All of the cases were diagnosed with refractory mycoplasma pneumoniae pneumonia (RMPP) and complicated with necrotizing pneumonia(NP). The ages of the patients ranged from 5.3 to 11.5 years old. The main manifestations were cough and fever(n=16, 100%),chest pain (n=8, 50%) , shortness of breath(n=8,50%), hemoptysis (n=4, 25%). Among them, the pulmonary artery was involved in 12 patients, including 6 cases on the right, 4 cases on the left, and 2 cases on both sides. Besides, the pulmonary vein was suffered in 3 patients. Furthermore, Pulmonary artery and pulmonary vein were involved in 1 patient. The mean D-dimer level was $8.50\pm 4.76\text{mg/L}$. All patients underwent anticoagulant therapy. After treatment, all patients's symptoms were improved, and the lung lesions were significantly improved. **Conclusion:** For children with RMPP, PE and NP should be considered when chest pain, hemoptysis or high level of d-dimer are present. Chest enhanced CT scan should be performed as soon as possible, and anticoagulation should be treated once the diagnosis of PE is confirmed. The long-term prognosis of PE was favorable after the timely administration of anticoagulant therapy.

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