Correspondence

Chest imaging findings in children with influenza A H1N1

To the Editor

I have 3 comments on the interesting study by Guo et al[1] on the chest imaging findings in children with influenza A H1N1.

First, Guo et al[1] stated that pediatric patients with influenza A H1N1 who have pre-existing medical conditions may develop more severely clinical signs and they suggested to be confirmed wide-based studies. Actually, that issue is still controversial and recently published studies have failed to unveil that controversy. On one hand, the presence of underlying chronic illnesses was found to increase both the severity of clinical presentation and mortality of HINI infection in children.[2,3] On the other hand, the progress of pandemic influenza infection in previously healthy children was noticed to be as severe as their counterparts with chronic underlying diseases.[4,5] It remains unclear whether that observation was incidental or scientifically- based.

Second, Guo et al[1] also stated that normal radiographic findings in influenza A H1N1 in children may be co-exist with mild clinical symptoms, and they suggested that these cases should still be followed-up, as some will have abnormalities in high resolution CT scan. Actually, initial chest radiographs in children with a mild and self-limited clinical course of H1N1 infection are often normal, but they might demonstrate prominent peribronchial markings with hyperinflation. Bilateral, symmetric, and multifocal areas of consolidation, often associated with ground glass opacities, are the predominant radiographic findings in pediatric patients with a more severe clinical course of H1N1 infection.[6] In addition, initial chest radiography might have significance in helping predict the clinical outcome but normal initial radiographs cannot exclude adverse outcome. Extensive involvement of both lungs, evidenced by the presence of multizonal and bilateral peripheral opacities, is associated with adverse prognosis.[7]

Third, though Guo et al[1] installed various radiological patterns in their studied children with HIN1 infection, it should be kept in mind that chest imaging studies, including chest radiography and CT scan, must be regarded as auxiliary tests that help suspect infection with HIN1 rather than specific tests as they are not revealing diagnostic radiological findings.

Mahmood D. Al-Mendalawi
Department of Pediatrics, Al-Kindy College of Medicine, Baghdad University, Baghdad, Iraq

Reply from the Author

We are most grateful to Prof. Al-Mendalawi for his attention to our paper "Chest imaging findings in children with influenza A (H1N1)". The 3 comments of Prof. Al-Mendalawi's are also interesting. First, in our paper, 18 patients were indicated as diffuse areas of air-space consolidation and required mechanical ventilation. Among them, 10 pediatric patients with influenza A (H1N1) who have pre-existing medical conditions and have severe clinical signs and 3 of them died in this series. So, we think that pre-existing medical condition might be a factor influencing the condition of influenza A (H1N1). But it should be confirmed by wide-based studies. Second, normal radiographic findings in influenza A (H1N1) cases maybe co-exist with mild clinical symptoms. Marchiori et al[8] has reported that this kind of patients have been found on high-resolution computed tomography (HRCT). So we think this kind of pediatric patient should be followed up for a short period of time. Patients with diffuse areas of air-space consolidation with severe clinical symptoms need a long period of hospitalization. We agree to the point that initial chest radiography may have significance in helping predict the clinical outcome. Third, imaging patterns have significant role in diagnosing and assessing patient's condition with influenza A (H1N1). But, the final diagnosis should be combined clinical symptoms, imaging findings, and laboratory examination. We agree with Prof. Al-Mendalawi's view.

Wan-liang Guo, Jian Wang
Pediatric Research Institute, The Children's Hospital Affiliated to Soochow University, Suzhou, China

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