

Current status and recommendations of children with COVID-19 pneumonia.

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About the Study

Since the emergence of COVID-19 infections at the end of 2019, more and more people are infected globally. As of April 16, 2020, the number of confirmed patients worldwide has reached 1,914,916. It is worth noting that the number of pediatric patients is also increasing. In the early days of the outbreak, the first reported 425 laboratory-confirmed COVID-19 patients in Wuhan before January 22, 2020, showed that there were no cases in children under the age of 15. Soon afterwards, another 1099 laboratory-diagnosed cases from all over China through January 29, 2020, indicated that 0.9% of patients were aged below 15 years, which means that COVID-19 can be spread within the whole age spectrum. The earliest confirmed child in our hospital was an 8-month-old girl who was diagnosed on February 3. Her grandparents and father were diagnosed as COVID-19 infected patients with a clear history of epidemiology. Her clinical manifestations were cough and runny nose, but chest CT showed no positive signs. Among the patients younger than 15 years old in our hospital, 3 patients had corresponding chest CT changes, all of which showed focal sub pleural ground glass opacity (GGO). However, there were studies reporting that some children's chest CT can also show large-scale consolidation. But most of them were smaller than adults.

The clinical symptoms of pediatric patients are non-specific. In the initial stage, fever and cough are most commonly seen. Besides, other symptoms might appear to be runny nose, throat discomfort, dizziness, fatigue, abdominal pain and diarrhea. Even some of them will appear asymptomatic. Therefore, even without respiratory symptoms, the possibility of pneumonia cannot be completely ruled out. Once there is a clear history of epidemiology, the corresponding RT-PCR test or CT screening should be performed.

Limited by the high false negative rates and shortage of testing equipment, for now, RT-PCR cannot give a satisfied performance for diagnosing suspicious patients as much as possible. Although chest CT was not a diagnostic criterion for

COVID-19 pneumonia at the beginning, with the limitations of RT-PCR detection, chest CT screening is still an important way to diagnose new coronary pneumonia. Chest CT can quickly scan potential patients, which greatly improves the detection efficiency, especially in cities and regions with a large population. This is undoubtedly an economical and efficient method.

With the global pandemic of the epidemic, it is estimated that more and more children will be diagnosed, which is indeed worthy of our vigilance. In this regard, I have a few suggestions:

Those children who are in close contact with diagnosed COVID-19 patients need to be focused on.

Seek medical attention as soon as the corresponding symptoms or some abnormal conditions occur.

For pediatric patients admitted to hospital, routine nucleic acid test (RT-PCR) and chest CT screening should be performed.

Masks should be worn regularly, especially in areas with dense populations. Although these suggestions may not work in each city and region, they can be selected according to the specific situation of each place.

Finally, I hope this epidemic can be brought under control as soon as possible.

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