Severe Acute Respiratory Disease in a Huanan Seafood Market Worker: Images of an Early Casualty

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Figure 1: Images in a 44-year-old man who presented with fever and suspected COVID-19 pneumonia. A-C, Thin-slice (1-mm) axial CT images showed multiple patchy ground-glass opacity along the peribronchial and subpleural lungs. Some reticular opacities were also found within areas of ground glass (crazy-paving pattern). Lymphadenopathy was absent. D-F, Multiplanar reconstruction showed diffuse distribution of lesions.



Figure 2: Images in a 44-year-old man who presented with fever and suspected COVID-19 pneumonia. A-C, Serial chest radiographs spanning an interval of 4 days showed rapid progressively increased extension and density of the lung opacities, culminating in confluent basilar predominant bilateral lung consolidation.

A44-year-old man who was a transportation staff member in the Huanan seafood market in Wuhan, China, presented with a 13-day history of high fever and cough on December 25, 2019. High-sensitivity C-reactive protein level and erythrocyte sedimentation rate were elevated (>160.0 mg/L and ≥78.6 mm/h, respectively), while blood cell count showed normal white cells $(5.29 \times 10^9/L)$ with decreased lymphocytes $(0.22 \times 10^9/L)$. Chest CT showed patchy bilateral ground-glass opacities with peribronchial and peripheral/subpleural distribution (Fig 1).

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Serial follow-up chest radiographs showed increased extension of the lung opacities and development of basilar predominant consolidation (Fig 2). He was clinically diagnosed with severe pneumonia and acute respiratory distress syndrome. Usual respiratory pathogens were excluded, and he was eventually diagnosed as a suspected case of COVID-2019 (formerly known as 2019 novel coronavirus) infection. Unfortunately, he died 1 week later after failure of supportive measures.

This case occurring at the epicenter outbreak of COVID-19 pneumonia illustrates the potential severity of this disease, at the same time that it underscores the role of imaging for monitoring disease progression. Moreover, CT could also have an important diagnostic role, especially when confirmatory tests, such as the real-time RT-PCR are unavailable (1–4).

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