CLINICAL IMAGES

Varicella pneumonia in an immunocompetent adult

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A 30-year-old woman presented with a 3-day history of fever, chills, cough, chest pain on coughing and deep breathing, and shortness of breath on exertion. She also had a vesicular skin rash that had started a week before her presentation. Her 10-year-old daughter had been diagnosed with mild chickenpox 3 weeks earlier, at which time our patient had taken prophylactic acyclovir for 5 days. She had no history of chickenpox and had not been immunized with varicella vaccine.

On presentation, her temperature was 39.4°C, heart rate was 120 beats/min, respiratory rate was 24 breaths/min and oxygen saturation was 96% on room air. She had a polymorphic rash with vesicles, pustules and crusty lesions. Chest radiography showed multiple small nodules bilaterally (Figure 1). High-resolution computed tomography (CT) showed numerous ill-defined centrilobular nodules, randomly distributed in both lungs with surrounding ground-glass attenuation. We diagnosed varicella pneumonia based on the presence of a typical skin rash, pulmonary symptoms and contact with a child with chickenpox. Treatment included intravenous acyclovir and admission to the intensive care unit for further monitoring. Our patient's symptoms started to improve within 48 hours of treatment. She was switched to oral acyclovir on day 5 and completed 10 days of treatment. She recovered uneventfully with complete resolution of the lung lesions.

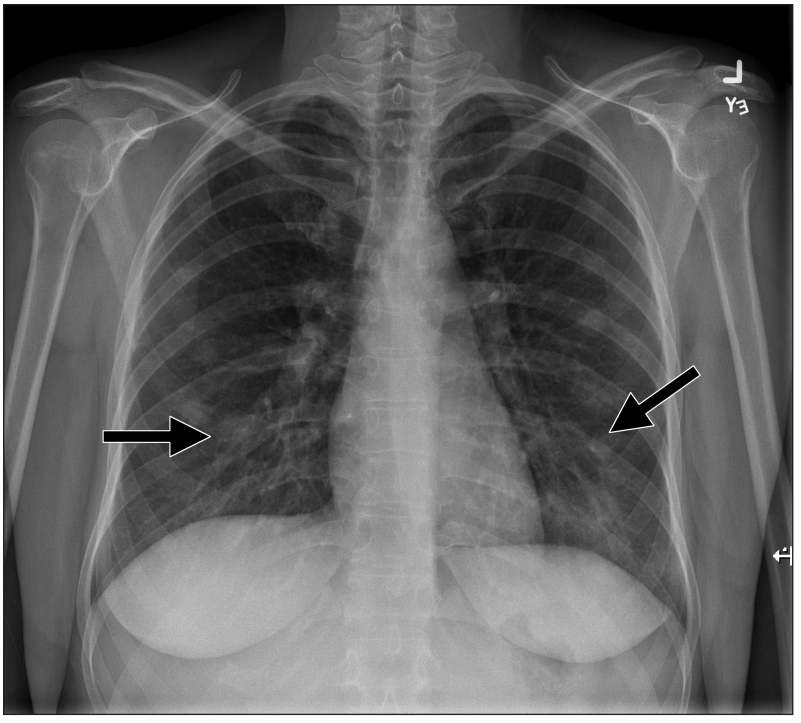

Figure 1: Chest radiograph in a 30-year-old woman showing multiple small nodular lesions bilaterally (arrows).

Some form of pulmonary involvement complicates between 5% and 15% of instances of adult chickenpox.[1] Risk factors for progression to pneumonia include pregnancy, smoking, older age, chronic obstructive pulmonary disease and immune suppression.[2] Usually pulmonary symptoms occur 1 to 6 days after the onset of varicella zoster infection.[1] Typical clinical manifestations include cough, dyspnea and fever. Pleuritic chest pain, cyanosis or hemoptysis can sometimes occur.

Current consensus supports a 7-day course of intravenous acyclovir for pneumonia associated with varicella; early intervention may modify the natural course of this complication.[3,4] Pregnant women with signs of severe disease or risk of premature labour, and immunocompromised patients require close monitoring.[4] In patients who are immunocompromised, the disease may progress rapidly into adult respiratory distress syndrome and respiratory failure, with mortality approaching 50% despite aggressive treatment.[4] Most healthy adults have favourable outcomes with complete recovery.[5]

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