A 4-year-old boy presented to the hospital in the sixth day of ongoing varicella infection with high fever, respiratory distress, and hypoxemia. Physical examination showed tachypnea, a generalized vesicular exanthema, perioral impetigo (Figure 1), bilateral rales, and diminished breath sounds at pulmonary auscultation. Chest radiograph revealed bilateral, multifocal, heterogeneous alveolar opacities with nodular pattern, reaching the periphery (Figure 2; available at www.jpeds.com). Blood testing showed 9.7 × 10⁹/L white blood cells, 3.7 × 10⁹/L neutrophils, 5.1 × 10⁹/L lymphocytes with 7% reactive lymphocytes, C-reactive protein 1.8 mg/dL, and serum lactate dehydrogenase 1335U/L.

His mother was diagnosed with HIV1 2 years after his birth, during another pregnancy. Maternal HIV-serology at his delivery was negative and he was breastfed for 18 months. Growth, development, and nutrition history was unremarkable. He had microcytic anemia at 8 months with no relevant further clinical history.

The severe presentation of an usually benign disease of infancy and HIV1 infection; his mother led us to the diagnosis of HIV1 (G-subtype) infection. The TCD4+ count was 292.2 cells/mm³ (22.5%) and the viral load 111 copies/mL.

Treatment was immediately started with intravenous acyclovir, flucloxacillin, clindamycin, and cotrimoxazole, considering the most probable agents for the pneumonia in this child: varicella-zoster virus, Staphylococcus aureus, Streptococcus pyogenes (due to secondary skin infection), and Pneumocystis jirovecii (HIV+, hypoxemia, and elevated lactate dehydrogenase). A full clinical and radiologic recovery was observed. No isolates (including mycobacteria and fungi) were found. Blood cultures were negative as well as gastric aspirate testing for Mycobacterium tuberculosis.1-4 Pneumonia rarely complicates varicella-zoster infection in immunocompetent children and should be a signal for immunodeficiency. A negative maternal HIV test performed at delivery does not exclude the possibility of mother-to-child transmission because the mother may have been infected close to or after the delivery. In our patient, the transmission could have occurred through breast milk. ■

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References available at www.jpeds.com
References


Figure 2. First day hospital admission chest radiograph (sixth day of exanthema), showing multifocal and heterogeneous alveolar opacities with a nodular pattern, typical of varicella-zoster pneumonia.