Hantavirus and Tuberculosis Co-Infection in an Indian Child

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Keywords: hantavirus, children, India

Abstract

Hantaviruses are identified as etiological agents of two human diseases, hemorrhagic fever with renal syndrome (HFRS) and hantavirus pulmonary syndrome (HPS). A 9 years old girl presented with fever, dry cough mainly during night time with post-tussive vomiting for 7-8 days. She also had breathlessness for 3 days. Her younger brother had been treated for tuberculous osteomyelitis and had completed anti-tuberculous therapy one year ago. There was no recent travel but there were rats in the house. On admission, patient was febrile, had tachycardia with cold extremities. Blood pressure was 98/60 mm of hg. Her respiratory rate was 60/min with distress. Air entry was reduced on right side of chest with bronchial breathing on auscultation. Other systems were normal. OptiMAL for malaria and dengue IgM were negative. Chest X-ray showed pleural effusion with underlying consolidation on left side. Quantiferon gold (quantitative) in tube test for tuberculosis was positive. Child was treated with antituberculous therapy (ATT), IV antibiotics and oxygen but had no response. She required inotrope support with invasive ventilation. On day 4 of hospitalization, she had decreased urine output with hemoconcentration. Urine for pneumococcal antigen and blood mycoplasma IgM were negative. Hantavirus IgM was positive. She was continued on inotropes and required blood transfusion. She subsequently improved by Day 10.