

Murine Typhus: a treatable yet often forgotten cause of acute febrile illness- a case report

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ABSTRACT

Introduction: The seroprevalence of murine typhus (MT) in Malaysia is around 2-30%. We reported a case of MT, co-infected with pulmonary tuberculosis (PTB). **Case Description:** A 30-year-old native male, a construction worker, presented with fever, productive cough, vomiting and diarrhoea for 2 days. He lived in a crowded house with 15 occupants. He was treated for severe community-acquired pneumonia in shock and needed intubation on admission. He was extubated 3 days later. His tracheal aspirate unexpectedly stained positive for acid-fast bacilli. He had generalized limb weakness associated with lower limb tenderness, suggesting myositis. Four days later, he was re-intubated for respiratory distress. Brain and spine imaging showed pons infarction despite normal cerebrospinal fluid findings and negative cultures. He was started on TB medications and oral doxycycline. His Rickettsia indirect immune-peroxidase test came back later, showing positive Ig G for endemic typhus with a titer of >1:100 on day 8 and 1:1600 on day 44 of illness respectively. He was discharged well. **Conclusion:** The clinical presentation of this case was acute and atypical of PTB. MT was diagnosed based on clinical presentation and a 16-fold rise in Rickettsia IgG for endemic typhus convalescence plasma. MT typically presents as mild illness but our case likely represents the 2-4% case that presented with severe pneumonia in shock. His risk factors were his occupation and crowded living conditions. He responded to oral doxycycline. MT should be considered in patients with risk factors who presented with acute febrile illness. Early initiation of empirical oral doxycycline for favourable outcomes is recommended, whereby rapid diagnostic test is not available.