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Letter

Real time assay of Aspergillus should be used in SARS patients receiving corticosteroids

EDITOR—No consensus currently exists on treatment of the severe acute respiratory syndrome (SARS). Wong et al reported that all patients with SARS received broad spectrum antibiotics and a combination of ribavirin and prednisolone.[1] Intravenous methylprednisolone at high dosage was used in patients with respiratory distress or progressive consolidations in a chest radiograph.

However, the treatment of SARS with ribavarin and corticosteroids remains controversial.[2] Corticosteroids are administered to suppress a possible cytokine storm, which may worsen the lung injury caused by the infectious agent.[2] But using corticosteroids with possibly ineffective antiviral agents in patients with virus induced pneumonitis can be hazardous.[2]

If corticosteroids are administered doctors must always be aware of complications such as superinfections with Aspergillus,[3] a known complication in any patient receiving corticosteroids.[4] Patients with SARS receiving corticosteroids should therefore be monitored for aspergillosis.

Since Aspergillus usually grows slowly on culture (taking up to six days) and is characterised by low sensitivity, we advise introducing an assay using amplification by the polymerase chain reaction, performed in real time, to detect 18SrRNA Aspergillus specific sequences in specimens obtained by bronchoalveolar lavage. Such an assay should be used in association with galactomannan antigen detection by enzyme linked immunosorbent assay (ELISA), as described by Sanguinetti et al.[5]

This promising method for diagnosing aspergillosis is highly sensitive, fast, specific, and non-invasive. It is certainly less traumatic than lung biopsy.[4 5]

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References

1. Wong RS, Wu A, To KF, Lee N, Lam CW, Wong CK, et al. Haematological manifestations in patients with severe acute respiratory syndrome: retrospective analysis. *BMJ* 2003;326: 1358-62.[Abstract/Free Full Text]

2. Oba Y, Lee N, Sung JJ. The use of corticosteroids in SARS. *N Engl J Med* 2003;348: 2034-5.[Free Full Text]

3. Wang H, Ding Y, Li X, Yang L, Zhang W, Kang W. Fatal aspergillosis in a patient with SARS who was treated with corticosteroids. *N Engl J Med* 2003;349: 507-8.[Free Full Text]

4. Muller FM, Trusen A, Weig M. Clinical manifestations and diagnosis of invasive aspergillosis in immunocompromised children. *Eur J Pediatr* 2002;161: 563-74.[CrossRef][ISI][Medline]

5. Sanguinetti M, Posteraro B, Pagano L, Pagliari G, Fianchi L, Mele L, et al. Comparison of real-time PCR, conventional PCR, and galactomannan antigen detection by enzyme-linked immunosorbent assay using bronchoalveolar lavage fluid samples from hematology patients for diagnosis of invasive pulmonary aspergillosis. *J Clin Microbiol* 2003;41: 3922-5.[Abstract/Free Full Text]

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