



Letter to the Editor AMJ 2012, 5, 1

Comment on: invasive pulmonary aspergillosis

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Dear Editor,

We read the case study titled "Invasive pulmonary aspergillosis caused by *Aspergillus versicolor* in a patient on mechanical ventilation" by Charles MVP et al. in the November, 2011 issue¹ with great interest. We earnestly appreciate the commendable effort put in by the respective authors. However, we wanted to share some relevant information regarding the diagnosis of invasive pulmonary aspergillosis (IPA).

Owing to the grave prognosis, an early diagnosis and treatment initiation is critical for the outcome of patients with IPA. However, a diagnosis based on the respiratory-tract cultures is not very sensitive or specific and positive sputum cultures do not always correlate with invasive disease (positive predictive value: 14%–82%) even in severely immunocompromised patients (haematologic malignancy, granulocytopenia, bone marrow or solid organ transplant recipients).² Histopathological evidence of tissue invasion by the organism is essential for definitive diagnosis of IPA.³ However, these patients are often extremely ill or severely immunocompromised; consequently an invasive procedure to obtain a tissue sample may not be advisable owing to the added morbidity. Hence, molecular and serological techniques to detect the cell wall constituents such as galactomannan and β -D-glucan antigens offer a convenient option for the early diagnosis of IPA. β -D-glucan and galactomannan individually have high sensitivity, specificity, positive and negative predictive values (approximately 88%, 90%, 70% and 96% respectively) and in combination have 100% specificity and 100% positive predictive value for diagnosing invasive aspergillosis and hence should be used in suspected patients in whom obtaining a biopsy may not be advisable.⁴ A chest computed tomography (CT) remains the best radiological method to detect early lung involvement in IPA.⁵ In regard to

this case, we would also like to mention that clinical pulmonary infection score has poor accuracy for diagnosing ventilator associated pneumonia⁶ and the pulmonary infiltrates could have also been due to ventilator induced lung injury.

This interesting case called for inclusion of these investigative modalities and some more discussion on these issues in the report. We hope that this information will be useful in early definitive diagnosis of IPA in the setting of high clinical suspicion.

Sincerely,

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