CORRESPONDENCE

Diagnostic role of an oligonucleotide array in a heart transplantation patient with invasive pulmonary aspergillosis

Dear Editor,

Invasive mycoses remains an important issue for immunocompromised patients based on recent studies. Early diagnosis of invasive aspergillosis is especially essential to a favorable outcome because the mortality rate is as high as 70%. For rapid identification of molds, an oligonucleotide array was developed based on the internal transcribed spacer-1 (ITS-1) and ITS-2 sequences of the rRNA genes. The array can identify 64 species of fungi with a high sensitivity (98.3%) and specificity (98.1%). However, its usefulness for direct detection of fungi in clinical specimens has not been approved. Therefore, we presented a patient as clinical experience of the application of oligonucleotide array for rapid diagnosis of invasive pulmonary

Figure 1. (A) Computed tomography shows a ball-in-hole lesion on the right lower lung. (B) After 3 months of voriconazole therapy, the lung lesion resolved. (C) Direct detection of fungi in sputum by the oligonucleotide array. The signals of Aspergillus fumigatus (right) and Aspergillus terreus (left) are indicated by the arrows, while the hollow arrow indicates the positive control. (D) Identification of the fungus isolated from sputum by the array. The signal of A. terreus is indicated by the arrow, while the hollow arrow indicates the positive control.

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Aspergillus terreus fungal isolate was later identified as reported from the clinical microbiology laboratory. The addition, the array found two Aspergillus complementary tool in the diagnosis of invasive aspergillosis. In conclusion, we present a case of heart transplantation and early initiation of appropriate antifungal therapy could be possible.

Conflicts of interest

All contributing authors declare no conflicts of interest.

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