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Medical News

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Aspergillus terreus Infections in Patients With Hematologic Malignancies

Invasive aspergillosis has emerged as a common cause of morbidity and mortality among immunocompromised patients. Hachem et al. at the University of Texas M. D. Anderson Cancer Center, Houston, pointed out that *Aspergillus terreus* is second to *A. fumigatus* as the most common cause of invasive aspergillosis. They compared the risk factors and outcomes associated with invasive aspergillosis caused by *A. terreus* versus *A. fumigatus*. They retrospectively reviewed the medical records of 300 patients who received care at their institution between 1995 and 2001 and who had cultures that were positive for *Aspergillus* infection, including 90 patients whose cultures were positive for *A. fumigatus* and 70 patients whose cultures were positive for *A. terreus*.

Thirty-two patients with invasive aspergillosis caused by *A. terreus* and 33 patients with invasive aspergillosis caused by *A. fumigatus* were evaluated. The two groups were comparable in terms of age, gender, and underlying disease. Leukemia was the most common underlying malignancy (84%). More than 40% of the patients in each group had undergone bone marrow transplantation. There was a trend toward a higher frequency

of neutropenia among patients with invasive aspergillosis caused by *A. terreus* ($P = .12$). Invasive aspergillosis caused by *A. terreus* was considered to be nosocomial in origin significantly more frequently than invasive aspergillosis caused by *A. fumigatus* ($P = .03$). In vitro, *A. terreus* was found to be more resistant to amphotericin B (minimal inhibitory concentration [MIC₉₀], 4.0 µg/mL) than to antifungal therapy (MIC₉₀, 1.0 µg/mL) in the isolates that were tested (< 50% of all isolates). The overall rate of response to antifungal therapy was 39% for patients with *A. fumigatus* infection, compared with 28% for patients with *A. terreus* infection ($P = .43$). The authors concluded that despite the decreased in vitro susceptibility of *A. terreus* (relative to *A. fumigatus*) to amphotericin B, the two groups within the current patient population had comparably poor responses to amphotericin B preparation and somewhat improved responses to posaconazole.

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