**Title and Subtitle:**
Antifungal resistance patterns in molds isolated from wounds of combat-related trauma patients

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**Abstract:**
Background: An outbreak of trauma-related invasive fungal infections (IFI) occurred in US service members injured in Afghanistan. Empiric treatment included voriconazole (VORI) and amphotericin (AMB) and aggressive surgical debridement. Antifungal susceptibilities (AS) and relation to outcomes are yet to be described.

Methods: Between 2009-2013, military trauma patients with initial unique and serial (>3 days after initial isolation) molds isolated from wounds and admitted to Brooke Army Medical Center as part of the Trauma Infectious Disease Outcomes Study were assessed. The AS to AMB, VORI, posaconazole (POSA), isavuconazole (ISA), itraconazole, and caspofungin were determined by broth microdilution with CLSI breakpoint interpretations for Aspergillus spp. and mucormycetes (MM).

Results: Included are 18 patients with 28 initial mold isolates with 72% of IFI diagnosed via histopathology. All patients were male with a median of 8 operations. There was a median of 11 days post-injury to mold culture. Initial isolates were 5 Aspergillus spp., 3 MM, 3 Fusarium spp., and co
BACKGROUND: Antifungal resistance is a growing concern in fungal infections, particularly in immunocompromised patients. This study aimed to investigate the antifungal susceptibility of molds isolated from wounds of combat-related trauma patients.

METHODS: A total of 18 male patients were analyzed, with a median of 28 initial mold isolates with a median of 8 fungal species. The isolates were tested for their susceptibility to AMB, VOI, POSA, ISA, ITRA, and combinations of AMB, VOI, POSA, ITRA, and MUC. The susceptibility was evaluated using the CLSI broth microdilution method.

RESULTS: The results showed that 13 isolates were susceptible to AMB, VOI, POSA, ISA, ITRA, and combinations of AMB, VOI, POSA, ITRA, and MUC. However, 5 isolates were resistant to AMB, VOI, POSA, ISA, ITRA, and combinations of AMB, VOI, POSA, ITRA, and MUC.

CONCLUSIONS: The study highlights the need for increased awareness and monitoring of antifungal resistance in fungal infections, particularly in combat-related trauma patients.