Advances in management of invasive fungal infections: perspectives on hematologic diseases

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Invasive fungal infections (IFIs) are common causes of mortality and morbidity in patients with hematologic diseases. Delayed initiation of antifungal treatment is related to mortality. Aspergillus sp. is the leading cause of IFI followed by Candida sp. Diagnosis is often challenging owing to variable conditions related to underlying diseases. Clinical suspect and prompt management is important. Imaging, biopsy, and non-culture-based tests must be considered together. New diagnostic procedures have been improved, including antigen-based assays and molecular detection of fungal DNA. Among hematologic diseases, patients with acute myeloid leukemia, myelodysplastic syndrome, recipients of hematopoietic stem cell transplantation are at high risk for IFIs. Antifungal prophylaxis is recommended for these high-risk patients. There are continuous attempts to achieve ideal management of IFIs. Scoring system for quality control has been developed with important recommendations of current guidelines. Higher adherence to guidelines is related to decreased mortality in IFIs.