

INVASIVE FUNGAL INFECTIONS IN RECIPIENTS OF ALLOGENEIC HEMATOPOIETIC STEM CELL TRANSPLANTATION AFTER NONMYELOABLATIVE CONDITIONING: RISKS AND OUTCOMES

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The incidence of invasive mould infections has increased during the 1990s among allogeneic hematopoietic stem cell transplantation (HCT) recipients after myeloablative conditioning. In this study, we determined risk factors for invasive fungal infections and infection-related death among 163 patients after allogeneic HCT with nonmyeloablative conditioning at a single transplant center between December 1997 and October 2001. The cumulative incidence rates of proven or probable invasive fungal infections, invasive mould infections, invasive aspergillosis, and invasive candidiasis during the first year after allogeneic HCT with nonmyeloablative conditioning were 19%, 15%, 14%, and 5%, respectively, which were similar to those after conventional myeloablative HCT. Invasive mould infections occurred late after nonmyeloablative conditioning (median, day 107), with primary risk factors including severe acute graft-versus-host disease (GVHD), chronic extensive GVHD, and cytomegalovirus (CMV) disease. Half of the invasive mould infections occurred within 46 days and 84% occurred within 6 months after beginning corticosteroid therapy for GVHD. The one-year survival after diagnosis of mould infections was 32%. High dose of corticosteroid therapy at diagnosis of mould infection was associated with an increased risk for mould infection-related death. Overall, non-relapse mortality was estimated at 22% (36 patients) after nonmyeloablative conditioning, of which 39% (14 patients) were mould infection-related (9% of the overall mortality). More effective strategies are needed to prevent invasive mould infections, which currently account for a notable proportion of non-relapse mortality after nonmyeloablative allogeneic HCT.