

# Opportunistic infections following heart transplantation: a case series

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**Introduction:** This case series investigates the incidence, types, and outcomes of opportunistic infections in the first year following heart transplantation. Heart transplantation is a critical intervention for patients with end-stage heart failure. However, the necessity for immunosuppression significantly increases the risk of such infections.<sup>1</sup>

**Case series:** This study reports on five out of eleven patients who underwent heart transplantation in 2023. Those five patients, with a mean age of 56.96 years, presented with fever and elevated C-reactive protein levels during routine check-ups. Within an average of 10.5 months after their transplantations, four out of those five febrile patients were diagnosed with opportunistic fungal infections, while one patient remained without a confirmed infectious agent. All five febrile patients received prophylactic miconazole and ganciclovir treatments immediately after transplantation. The detection of nodular formations on chest CT scans prompted further evaluation, which confirmed infections through bronchoalveolar lavage and the identification of  $\beta$ -D-glucan and galactomannan in blood samples in four of five febrile patients. The infections were exclusively fungal, with *Candida albicans*, *Aspergillus fumigatus*, and *Cryptococcus neoformans* identified as the primary pathogens. One patient infected with *A. fumigatus* also exhibited a co-infection with *Mycobacteroides spp.* and *Cytomegalovirus*. During the infection, it was necessary to carefully adjust the immunosuppressive therapy to achieve better control of the infectious process and simultaneously avoid transplant rejection. All four diagnosed patients responded positively to their specific antifungal treatments and were subsequently discharged.

**Conclusion:** This case series highlights the substantial risk of opportunistic infections following heart transplantation. The observed high incidence of infections underscores the need for continuous monitoring and vigilance in this patient group. Successful management and favorable outcomes emphasize the critical role of timely diagnosis and intervention in improving patient care post-transplantation.

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## LITERATURE

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