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P202: Investigation of a cluster of invasive mold infections in a large teaching hospital

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Introduction

In July 2010, we observed an increased number of invasive mold infections (IMI) in the hematology wards of our institution.

Objectives

We assessed risk factors associated with IMI in order to optimize preventive and protective measures.

Methods

Retrospective matched case-control study conducted in a 1900-bed teaching hospital between September 2008 and March 2011. Cases were defined as proven, probable, or possible according to standardized international consensus definitions. Controls were at-risk patients (onco-hematologic patients and allogeneic hematopoietic stem cell transplant recipients) hospitalized during the same time period as cases. Data were recorded by three investigators unblinded to the case-control status using a standardized case-report form. Conditional logistic regression was applied.

Results

Between November 2008 and March 2011, a total of 29 cases were identified: 6 proven (20.7%), 8 probable (27.6%) and 15 possible cases (51.7%); 102 controls were matched to cases. Cases had a longer hospital stay (P<0.001) and were exposed to a longer duration of neutropenia (P<0.001). They differed from controls regarding the hospitalization ward (P=0.001), chemotherapy use in the prior year (P=0.002), the existence of prior cytomegalovirus (CMV) infection (P=0.03), and a higher number of examinations outside the ward before IMI diagnosis (P<0.001). By multivariate analysis, after

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adjustment for age, hospitalization ward, duration of neutropenia, and history of CMV infection, two independent factors were associated with IMI: length of hospital stay in days (OR 1.06, P=0.02) and the number of examinations outside the ward (OR 1.47; P=0.02).

Conclusion

Our results suggest that cases were more exposed to environmental fungi and specific recommendations related to patient transport within the hospital were reinforced.

Disclosure of interest

None declared.

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