

POSTER PRESENTATION

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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

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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