Incidence of candidaemia and antifungal sensitivity in critically ill patients

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The incidence of invasive candidaemia is increasing all over the world, mainly in critically ill and immunocompromised patients. A shift to non-albicans species and a growing antimycotic resistance have been noticed.

We analyzed the different Candida species isolated from bloodstream infections and the related antifungal susceptibility pattern over a three year period at Policlinico Umberto I of Rome.

7574 blood cultures were tested from 2009 to 2011. The overall incidence of invasive candidaemia during the three years under study was about 4.75% with a marked increase from 2009 to 2011 (3.85% to 7.5%). The species isolated were the following: C. albicans 37.6% and non-albicans 62.4% (C. krusei 30.2%, C. glabrata 21.7%, C. parapsilosis 5.6%, C. tropicalis 3.8% and C. lusitaniae 1.1%).

C. albicans showed a growing resistance to amphotericin B (from 0% in 2009 to 6.6% in 2011) and voriconazole (from 0% in 2009 to 13.4% in 2011). C. krusei exhibited a raising resistance to amphotericin B, itraconazole and voriconazole (from 0% to 40%, from 25% to 50%, from 0% to 20%, respectively). All C. krusei resulted to be resistant to fluconazole (intrinsic resistance). In C. glabrata a marked increased of resistance to all the antifungal agents was observed. In vitro activity of the echinocandins resulted to be very strong for all Candida species.

Our study confirms the high incidence of candidaemia (especially C. albicans) in the setting of critically ill patients. The overall rate of resistance increased over the study period in all the Candida strains.

Biography

Maria Teresa Mascellino has completed her MD at the age of 25 years from University “La Sapienza” of Rome and specialization studies in Clinical Microbiology from University “La Sapienza” of Rome.

She is the Director of Microbiology Laboratory in the Department of Infectious Diseases.

She has published more than 80 papers in reputed journals and serving as an editorial board member of repute. She is member of many scientific societies.

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