

P0080

Poster Session I

Confronting fungal infections

Changing pattern of fungaemia in haematological patients; a six-year surveillance study

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Aim: To assess the epidemiology of fungemia in hematological patients

Material and Methods: Patients with fungemia were retrospectively reviewed. This study was conducted in hematology unit (30-bed) and blood marrow transplantation unit (35-bed) of a tertiary care hospital.

Results: A total of 40 fungemia episodes of 37 patients were analyzed. Of these 17 were caused by *Candida* species, 13 were *Blastoschizomyces capitatus* and 1 was *Trichosporon spp.* Remaining nine were yeasts, but further identification was not performed. Number of fungemia episodes according to years was as follows; three of them in 2009, three in 2010, eight in 2011, 12 in 2012 and 14 in 2013 occurred in a growing number. Etiologies of fungemia by years are given in Table 1. The median age of the patients were 41 (20-83), 50% of them were female. The most common underlying malignancies of patients were acute myeloid leukemia (13), acute lymphoblastic leukemia (12) and lymphoma (11). Seventeen (42.5%) of patients were underwent bone marrow transplantation. Two of patients with *Blastoschizomyces capitatus* fungemia had liver, spleen and kidney involvement whereas one other had joint involvement simultaneously with liver and spleen. Twenty (50%) of patients were receiving antifungal treatment before isolation of causal agent. Interval between first and last positive culture was significantly longer in patients with *Blastoschizomyces* fungemia when compared with *Candida* species ($p < 0.05$). The median duration of neutropenia was 11 (0-132) days. Mortality rate was 45% among all patients. The patients died after a median duration of 11(3-57) days the fungi isolated. Antifungal resistance rates of 10 *Blastoschizomyces* isolates were found to be 70 % for caspofungin and 0 % for fluconazole, amphotericin B and voriconazole. Antifungal resistance rates for 15 *Candida* species were 33.3% for fluconazole, 7% for caspofungin, 6.6% amphotericin B and 0% for voriconazole.

Conclusion: Opportunistic fungal infections have become more prevalent in recent years. Among the emerging yeast pathogens we found an increase of fungemia cases due to *Blastoschizomyces capitatus*. Clinicians should consider this agent particularly in neutropenic patients with persistent fever. Caspofungin resistance of *Blastoschizomyces capitatus* is quite remarkable and should be kept in mind.

Years	Etiology of fungemia	No
2009	<i>C. tropicalis</i>	3
	<i>C. kruzei</i>	
	<i>C. parapsilosis</i>	
2010	<i>C. parapsilosis</i>	3
	Yeast (2)	
2011	<i>C. parapsilosis</i>	8
	Yeast (3)	
	<i>C. kruzei</i> (3)	
	<i>Trichosporon spp</i>	
2012	Yeast (3)	12
	<i>C. glabrata</i> (2)	
	<i>Candida spp.</i> (2)	
	<i>Blastoschizomyces</i> (5)	
2013	<i>Blastoschizomyces</i> (8)	14
	<i>C. albicans</i>	
	<i>C. kruzei</i>	
	<i>C. glabrata</i>	
	<i>C. spherica</i>	
	Yeast (2)	
Total		40