Candidemia among the patients of General Surgery Department in Ege University

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Background:

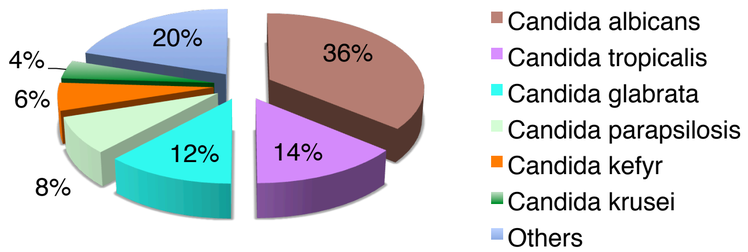
Candida speices have still high mortality and morbidity rates besides being an important cause of nosocomial blood stream infections all over the world. History of abdominal surgery, total parenteral nutrition, extensive spectrum antibiotic usage, immunosuppression like organ transplantations are considered as the major risk factors for candidemias and in this study, we aimed to investigate the candidemic patients in the terms of causative agents, treatment and prognosis.

Material/methods:

This study was performed at a tertiary-care educational university hospital. Adult (>18 years old) patients with culture proven candidemias in the services or intensive care units of General Surgery Deparment were included in the study between the years of 2012-2017, retrospectively.

Comorbidities	Number (n) and Percentage (%)
Renal Transplantation	5 (10%)
Liver Transplantation	4 (8%)
Intestinal perforation	6 (12%)
Intraabdominal abscess	6 (8%)
Anastomotic leakage	3 (6%)

Pathogens



C.albicans (36%; 18/50), C.tropicalis (14%; 7/50), C.glabrata (12%; 6/50), C.parapsilosis (8%; 4/50), C.kefyr (6%; 3/50), C.krusei (4%; 2/50), C. pulcherrima (2%; 1/50), C.neoformans (2%, 1/50), Geotrichum capitatum (2%, 1/50), Candida spp (14%; 7/50)

Results:

A total number of 50 candidemic patients were included. Mean age was 58.96 years and 54% of the patients were female. Forty-four patients had receiving total parenteral nutrition, nine patients had organ transplantation (4 liver and 5 renal transplanted), six patients had intestinal perforation, four patients had intraabdominal abscess and three patients had anastomotic failure. Pathogens were *C.albicans* (36%; 18/50), *C.tropicalis* (14%; 7/50), *C.glabrata* (12%; 6/50), *C.parapsilosis* (8%; 4/50), *C.kefyr* (6%; 3/50), *C.krusei* (4%; 2/50), *C. pulcherrima* (2%; 1/50), *C.neoformans* (2%, 1/50), *Geotrichum capitatum* (2%, 1/50), *Candida spp* (unidentified, 14%; 7/50), respectively. The highest antifungal sensitivity rates (>90%) were spotted for amphotericin B, voriconazole and echinocandins among all isolates. Mortality rate (1 month) were recorded as 40% (20/50). Among 33 patients whose control cultures were sended, microbiologic eradication were seen in 24 patients (72.7%) and mean duration of eradication were recorded as 7.6 days. Echocardiography was performed in 14% (7/50) and *ophthalmic examination in 8%(4/50).*

Conclusions:

Although *C.albicans* is still major pathogen among candidemic patients, the numbers of non-albicans speices are increasing. Early diagnosis and treatment has a vital importance in candidemic patients due to high mortality rates.