

Incidence of fluconazole resistance in candida spp. among immunocompromised patients

ABSTRACT

Objective: To determine fluconazole resistance in Candida spp. Among immunocompromised patients. Methodology: This study included of total 100 Bronchoalveolar lavage fluid samples of cancer patients, which comprised 37 lung cancer, 19 lymphoma, 18 leukemia, 4 oral cancer, 7 GI cancer, 6 bone cancer and 9 breast cancer proved by histology reports. Samples were collected from Jinnah Hospital, Lahore, Pakistan. Sabouraud's dextrose agar was used for the isolation of Candida spp. and further confirmed by Gram staining and germ tube test. Disk diffusion method was used to check the susceptibility against fluconazole. Results: Out of patients, 65 were male and 35 females. Out of 100 samples, 40 were positive for lung cancer, 30 for leukemia and 30 for other malignancies proved by histopathology reports. From the samples, 28 (28%) were positive for Candida spp. and within these positive samples, 12 (42.71%) strains were C. albicans and 16 (57.14%) were non albicans species. Out of these 28 positive strains, 4 (14.85%) were resistant, 2 (7.14%) susceptible dose dependent and 22 (78.57%) sensitive to fluconazole. Conclusion: Isolation of candida spp. other than the Candida albicans and presence of resistance to most common drug that was used for the treatment is making the situation alarming. It needs more research to find out new antifungal drugs and mechanisms of drug resistance among Candida spp