

Effect of probiotics on *Candida* species isolated from urine sample of cancer patients

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Incidence of Candidiasis causing urinary tract infection is common in the proportion of immunosuppressed patients, as a result of more intensive regimens of cancer therapy, diabetes, complications of abdominal or cardiothoracic surgery, burns and trauma. For the treatment of candidiasis, imidazole drugs are effective; however, due to the intrinsic or acquired resistance of *Candida* species to these imidazoles, infections by *Candida* species may necessitate alternative treatment. The present study was undertaken to evaluate the efficacy of some probiotic strains isolated from commercial products against *Candida* species isolated from urine of cancer patients. Urine specimens were collected from 50 cancer patients clinically diagnosed with a urinary infection and processed on Sabouraud dextrose agar media. After incubation for 24h at 37°C, the yeast like colonies were characterized and identified with gram staining, standard carbohydrate assimilation test and growth in differential culture media CHROMagar. The study revealed an overall isolation of *Candida species* among the patients were 28% (14/50). Out of them 35% (5/14) *Candida albicans* were confirmed by a germ tube test. Probiotic strains *Lactobacillus* species were isolated from commercial available products like Bion, Ecobion, Prowell and curd and identified with the growth in MRS broth and standard biochemical test. Antifungal activity of probiotics has been performed on Mueller Hinton Agar media according to the guidelines of CLSI. The mean zone of diameter (mm) and the SD were found to be 16.21 ± 7.74 . Therefore, it is visualized that probiotics can be used as a treatment or co-treatment of candidiasis and improves the life value of cancer patients.

Biography

Vivek Kumar Shrivastav has completed his master's degree (Applied Microbiology) at the age of 22 years in June 2005 from College of Life Sciences, affiliated to Jiwaji University. He is pursuing Ph.D. from the same University. He has 5 years of experience and assist the teaching in M.Sc. microbiology students and guided more than 60 M.Sc. dissertation students on various topics. He has undertaken a UGC minor project as a principal investigator. He is the Life-member of various scientific bodies. Recently he has published a paper in the international journal and the co-author of a chapter in the international book.

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