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ePoster Viewing

Polymyxins and carbapenem-resistant bacteria

EFFECT OF A PROBIOTIC PREPARATION (VSL#3) ON KLEBSIELLA KPC ENTERIC COLONIZATION

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Objective: Colonization of KPC KP in the gastrointestinal tract of patients discharged from the Hospital is an important issue for several factors. In fact, it may precede and possibly serve as a source for subsequent clinical infection and further it may be an important reservoir for dissemination of KPC KP in healthcare facilities. Several studies have proposed to oversee and treat enteric colonization, but results are discordant. In the present study we aimed to evaluate the possible use of a probiotic preparation (VSL#3) containing about 450 billion viable lyophilized bacteria consisting of 4 strains of *Lactobacillus*, 3 strains of and *Streptococcus salivarius* subsp. *Thermophilus*, already associated to clinical improvement in several gastronetetic disease. Methods: We enrolled 32 patients dismissed from the Hospital with Klebsiella KPC enteric colonization from January 2012 to May 2013. They were randomly split in two groups (Group A: 17 pts 12 male and 5 female (median age 58 years) undergoing VSL#3 1 unit every 12 hours for the first 3 weeks and thereafter 1 unit for one month and finally 1 unit every day for the first two weeks of the months for four months – Group B 15 pts 11 male and 4 female (median age 49 years) followed up for 6 months). All patients underwent major abdominal surgery, excluding colorectal surgery, were screened with rectal samples every two weeks for the first month and thereafter every 3 weeks for the next five months. Results: 11 out 17 patients in group A were negative in three consecutive rectal samples after two months of treatment and for the follow-up period. Remaining patients did not show any negative results in their rectal samples but one was negative at the end of follow-up in three consecutive samples. 6 out 15 patients in Group B were negative within three months after hospital discharge, no other subjects showed negative rectal samples during six months follow-up. Differences between group A and B in positive rectal samples were statistical significant (U Mann-Whitney Test $p < .05$). Conclusion: The use of probiotic preparation VSL#3 may facilitate the Klebsiella KPC enteric decolonization in those subjects underwent major abdominal surgery. Further studies are required to better assess role and mechanisms of probiotics in Klebsiella KPC colonizations.