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Abstract

Specific probiotic combination excerting a synergistic effect against antibiotic-associated diarrhea during and after an antibiotic therapy, a randomized double-blind placebo controlled trial.

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Abstract:

Antibiotic treatment (AB) has been associated with disruption of microbiota, killing or suppressing antibiotic-sensitive bacteria and stimulating opportunistic bacteria (1-3). This disbalance can be linked to antibiotic-associated diarrhea (AAD) occurring up to 8 weeks after AB (1, 2, 4, 5). As probiotics are known to maintain or restore the gut micro-ecology, this trial investigated the possible synergistic effect of a specific probiotic preparation containing Lactobacillus acidophilus NCFM , Bifidobacterium lactis BI07, BI04, Lactobacillus paracasei Lpc-37 and Saccharomyces boulardii, compared to Saccharomyces boulardii alone and Placebo.

121 patients under Amoxycillin/Clavulanic acid were administered either the probiotic combination (Probactiol® duo, n=42), Saccharomyces boulardii (n=39) or Placebo (n=40) from the start of AB until 1 to 3 months after the end of the AB (end of trial, EOT). At the start, end of AB and EOT, stool samples were taken, the Gastro-intestinal Symptoms Rating Score (GSRS) and a daily bowel habit diary were completed.

The stool samples showed a very high decrease in third generation cephalosporin resistant bacteria colonization at EOT in the probiotics group while in the other groups, the colonization rate stabilized. The probiotics group experienced less gastro-intestinal complaints and obtained a normalization of stool during and after the antibiotics treatment (-11.3 and -18.4 points on the GSRS, respectively). In the Saccharomyces group, more constipation was seen at EOT while more diarrhea was present in the placebo group.

To conclude, the specific probiotic combination had a synergistic effect on the normalization of bacterial flora and stool during and after antibiotic therapy.

Biography:

Greet Vanheule has completed her master in biochemistry and biotechnology in 2015 at the university of Ghent. She started working in clinical research at diverse levels. At Metagenics, she's responsible for the conduct of all clinical trials from the beginning till the end including dataprocessing and article writing. As Metagenics is a science based food supplement company, this part is extremely important in order to have qualitative products for our costumers.

Publication of speakers:

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