

Improvement in Balance of Gut Microbiota

Joint research with Kinki University (2012)

The fermented vegetable extract OM-X (OM-X extract) is effective for the increase of the bifidobacteria and Butyrate-producing Clostridium ratio in feces of mice

Objective

The study was conducted to see how the administration of the OM-X extract would alter the microbiota of mice by T-RFLP analysis which assesses microbial community.

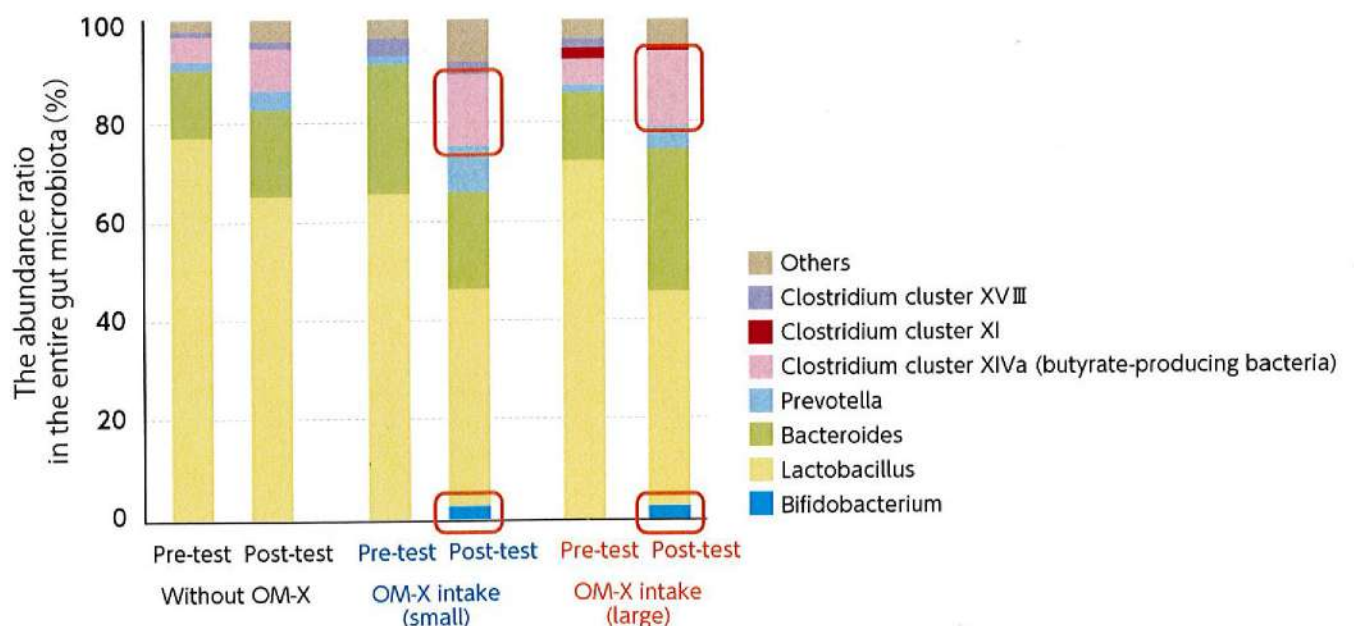
Methods

DNA was extracted from mice feces for T-RFLP analysis to see the changes in their microbiota. We assessed the effect of the OM-X extract by the comparison of microbiota before and after the administration.

Results

Compared with the data prior to the administration of the OM-X extract, the increase of *Clostridium* cluster XIVa was observed after the administration. *Clostridium* cluster XIVa is known as a butyrate-producing species, and it is predicted that the bacteria are involved in butyrate production which is one of important organic acids and responsible for cell proliferation, the anti-inflammatory action in the intestine etc. The study also showed an increase with bifidobacterium, which is known as good bacteria in the gut, after the OM-X administration. The result indicates that the administration of the OM-X extract altered the balance of gut microbiota.

The effect of the OM-X administration on the balance of gut microbiota



The fermented vegetable extract OM-X altered the balance of gut microbiota and may have induced butyrate production in the gut.