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The effects of kefir and vitamin E-supplemented diets on the activities of GSH-Px, GST, CAT, GSH and LPO levels in mice tissues

Aysel Guven[1], Ulviye Bunyatova[1], Abamuslum Guven[2] and Murat Gulmez[2]
[1]Baskent University, Turkey
[2]Kafkas University, Turkey

Functional foods including probiotics and kefir have increasingly becoming as popular as before in the developing world. The health benefits of kefir including the anti-oxidative effects are still under evaluation. Vitamin E is also a well-known antioxidant. The biologically damaging effects of reactive oxygen species are controlled *in vivo* by a wide spectrum of antioxidant defense mechanisms. Dietary constituents of antioxidant vitamins and other nutrients may play an important role in protecting against oxidant damage. This experiment was carried out to investigate the protective effect of against the oxidizing vitamin E and kefir in mice. Swiss Albino mice, weighing 22-26 g three-week-old, were used. At the end of the microbiological analysis of kefir, the averages of the total mesophilic aerobic colony counts, lactic acid bacteria, lactic streptococcus, enterococcus, total coliform and mould were found to be 1.04×10^9 CFU/ml, 9.87×10^8 CFU/ml, 4.38×10^8 CFU/ml, 7.80×10^4 CFU/ml, 0 CFU/ml, 1.26×10^5 CFU/ml respectively. While both vitamin E and kefir were found to have a protective effect against CCl4 induced damage, kefir was more protective. This may be the first study to compare the anti-oxidative action of kefir and vitamin E in the animal model.

ayselguven@hotmail.com