

Effects of some *lactobacillus* strains on plasma lipids of rats and fecal microflora.

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Lactobacillus represent one of the major genera of the intestinal tract of human and animals and are used, as probiotics, in dairy and non-dairy foods to restore the intestinal microflora which confer a health benefit. After an adaptation period for 7 days, the first group was fed on basal diet (80 g- for each rat group /day) and served as control I, while the second group was offered basal diet plus standardized buffalo's milk (40 ml. for each rat group / day) and served as control II. The other groups were fed on 80 grams of basal diet for each rat group / day and 40 ml. / day for each rat group, buffalo's milk plus one of the following ***Lactobacillus*** strains respectively ***L.casei*** strain AZ1, ***L.rhamnosus*** strain AZ1 and ***L.gasseri*** strain AZ1. Furthermore, supplementation of diets with fermented milk product**s** cultured with ***L. casei*** KY123805 or ***L. rhamnosus*** KY123789 resulted in noticeable decreases in Total cholesterol, HDL- cholesterol and triglycerides levels at the end of the experiment (28 days) as compared to dry diet (control I). Species of lactobacilli occurring in intestinal tract deconjugate both taurocholic and glycocholic acids, such serum cholesterol levels when it is considered that deconjugated bile acids function more poorly in supporting adsorption of lipids from the intestinal tract than deconjugated ones, this could result in reduce adsorption of cholesterol from the intestines and thus influence its serum level. Therefore, the main target of the present investigation was to isolate and identify some local isolates belonging to genera ***Lactobacillus.*** Also, the isolated strains have been screened in order to define their characteristics that would be as probiotic strains or not. Furthermore, the long-term goal of this work is to registering patent protection for some ***Lactobacillus spp.*** isolated from local Egyptian resources to increase the additive values of the Egyptian microbial wealth and well use it in the industrial healthy dairy products and pharmaceutical.