

3rd International Conference and Exhibition on Food Processing & Technology

July 21-23, 2014 Hampton Inn Tropicana, Las Vegas, USA

Clinical and pathological studies on the effect of some probiotic organism on modifying the metabolic parameters in hypercholesterolemic rats

Khaled Elzahar

Zagazig University, Egypt

The present investigation was performed to examine the effect of some probiotic on modifying some metabolic parameters (lipids profile and some hepatic and renal functions) in hypercholesterolemic rats. Hundred male albino rats (90-100 gm body weight) were used. The rats were divided into five groups each of twenty rats. Group 1 served as normal control fed on the basal diet. The other four groups were fed on basal diet plus cholesterol (1% cholesterol, 15% animal fat and 0.25% cholic acid). Group 2 served as positive control. Group 3 fed high cholesterol diet (HCD) supplemented with 20% Ras cheese prepared by lactic acid bacteria (LAB). Gp. 4 fed on high cholesterol diet supplemented with 20% Ras cheese prepared by probiotic cultures (*B. bifidum* + *L. bulgaricus* + *L. acidophilus*). Gp. 5 fed on high cholesterol diet supplemented with 20% Ras cheese prepared by probiotic cultures (*B. lactis* + *L. bulgaricus* + *L. acidophilus*) for five weeks. Blood and tissue samples were taken after 1, 3 and 5 weeks of the experimental period, blood sample were taken from retro orbital venous plexus of rat. Serum samples were used to the determination of serum lipid profile, protein, albumin, serum alanine amino transferase (ALT), creatinine and urea. Tissue samples were taken from liver and kidney for histopathological examination. The results indicated that feeding probiotic Ras cheese had a great effect on modifying the metabolic parameters studied more than traditional Ras cheese as compared with hypercholesterolemic group. Histopathological changes of the liver and kidney induced by hypercholesterolemia were improved by feeding probiotic Ras cheese.

k.elzahar@yahoo.com