ABSTRACT

"A Comparative Study between the Vegetarian and Lacto-Vegetarian Diet on Growth and Development; and Some Protein Metabolism Parameter in Young Rats."

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This study was undertaken to compare between vegetarian and lacto-vegetarian diets on growth and development and some protein metabolism parameters, and Hemoglobin and Hematocrit values of young rats. The young rats (48) were divided into 8 groups, each 6 rats. The diets was isocaloric and had a 10% protein level from the following protein sources: casein; acidified milk; faba bean; kidney bean; acidified milk+ faba bean; acidified milk+ kidney bean; kariesh cheese+ faba bean and kareish cheese+ kidney bean. At the end of the experimental period all groups of rats were sacrificed and blood samples were subjected to determination of Hemoglobin, Hematocrit, Total protein, Albumin, A/G Ratio, Serum Urea, Uric acid and Creatinine. The results revealed that groups of rats fed legumes failed to growth, while the mixing of Kariesh cheese with both legumes resulted in a higher growth rate. Serum total protein were increased in group fed acidified milk mixed with faba bean. Serum albumin were significantly increase ($P<0.01$) in groups fed the tested protein sources. While serum globulin were significantly decrease ($P<0.01$) in all groups when compared with control group. Serum urea values were significantly lowered in group of rats fed acidified milk mixed with kidney bean, whereas serum uric acid and Creatinine were decreased in groupnof rats fed casein (control) or acidified milk mixed with kidney bean. The study recommended that milk products must add to a plant protein based diets during growth period. Also the mixing of acidified milk with kidney bean decrease the serum uric acid values than other groups, so it may be beneficial for gouty people.

Key Words: Vegetarian- legumes- milk products- growth- hemoglobin- urea.