Ruvini Liyanage, J Nutr Food Sci 2016, 6:6 (Suppl)
http://dx.doi.org/10.4172/2155-9600.C1.029

Processed mung bean (*Vigna radiata* L. Wilczek) powder incorporated experimental diets modulate serum lipid and glucose concentrations in Wistar rats (*Rattus norvegicus*)

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Hyperlipidemic states especially hypercholesterolemia with reference to lipoprotein disorder and hyperglycemia and hyperinsulinemia are generally accepted as major modifiable risk factors for development of coronary heart disease. Hence, much attention has been paid to dietary interventions that lower plasma cholesterol concentration among the population as a tool to prevent and treat coronary heart diseases. Legumes are candidates to such interventions as they have shown hyperlipidemic effects in humans and animals. Effect of processing on functional properties of legumes is not widely studied. This study was carried out to investigate in vivo hypolipidemic and hypoglycemic effect of processed mung bean (Variety MI 6) powder incorporated experimental diets in comparison with raw mung bean powder and casein powder in rats. Seven weeks old male Wistar rats were fed with 0.5% cholesterol+30% raw mung bean diet (RMD), 0.5% cholesterol+30% boiled mung bean diet (BMD), 0.5% cholesterol+30% sprouted mung bean diet (SMD) in comparison with 0.5% cholesterol+10.15% casein powder diet (CD). The serum glucose and serum triglyceride concentrations of RMD, BMD and SMD fed groups were significantly ($P<0.05$) lower than CD fed group whilst serum low density lipoprotein (LDL) cholesterol concentration in rats fed with BMD and SMD diets were significantly ($P<0.05$) lower than CD fed group were supported by significantly ($P<0.05$) higher soluble dietary fiber content in boiled and sprouted mung bean than that in raw mung bean. Thus processed mung bean incorporated diets modulated both serum lipids and glucose in Wistar rats.

Biography

Ruvini Liyanage has completed her PhD from Obihio University of Agriculture and Veterinary Medicine, Japan and worked as a Post-doctoral Research Fellow at the same university. She is the Head of the Laboratory of Nutritional Biochemistry at National Institute of Fundamental Studies, Sri Lanka. She has published more than 15 papers in reputed journals.

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