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**Protective Effect of Purple Sweet Potato (*Ipomoea batatas*) on Hepatotoxicity Rats Induced by Carbon Tetrachloride**

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The purpose of this study was to investigate the effects of dietary purple sweet potato (*Ipomoea batatas*) powder on serum lipid levels and antioxidative enzymes in normal and protective effect on hepatotoxicity rats induced by carbon tetrachloride. Four groups of rats (3-week-old inbred Sprague-Dawley male rats) were normal rats fed control diet (C), induced hepatotoxicity rats fed control diet (EC), normal rats fed purple sweet potato diet (P), and induced hepatotoxicity rats fed purple potato sweet diet (EP). Rats were induced by single injection of 50% carbon tetrachloride (0.1 mL/100 g B.W., i.p.). The rats were fed *ad libitum* each of the experimental diet for 5 weeks. After 5 weeks the rats were sacrificed and activities of antioxidant enzymes and lipid peroxidation products were determined in their liver homogenates. But serum concentrations of lipid was not significant in all groups. Serum alanine aminotransferase (ALT/GPT) and aspartate aminotransferase (AST/GOT) of the EC and EP groups were higher than the C and P groups. The hepatic glucose 6-phosphatase (G6Pase) activity of the group fed purple potato diet (P) was lower than the other groups ( $p < 0.05$ ). However, The glutathione peroxidase (GPx) activities was not statistically different between the groups. Renal glutathione S-transferase (GST) activity of the EC and EP groups were lower than the C and P groups ( $p < 0.05$ ). In conclusion, these results suggest that purple sweet potato is believed to be possible protective effect on hepatotoxicity rats induced by carbon tetrachloride.

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**Effect of Dietary Mushroom and Onion on Blood Glucose, Lipid Concentrations and Creatine in Streptozotocin-Induced Diabetic Rats**

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The purpose of this study was to investigate the effect of dietary mushroom and onion powder on blood glucose, serum lipid concentrations and creatine in diabetic rats. Six groups of rats were normal rats fed control diet (C), diabetic rats fed control diet (CD), normal rats fed mushroom diet (M), onion powder diet (O), diabetic rats fed mushroom powder diet (MD) and onion powder diet (OD). Diabetes was induced by single injection of streptozotocin (60 mg/kg B.W.). Food and water intake were determined everyday. Blood glucose was determined every week. After 5 weeks, rats were sacrificed. Blood glucose, serum lipid and creatine concentrations were determined. There were weight loss in diabetic rats, but diabetic rats fed mushroom powder diet (MD) showed weight less than that fed control diet (CD). Onion powder diet group (OD) was decreased weight than that fed control diet (CD), ( $p < 0.05$ ). Blood glucose of control rats fed control diet (C), mushroom (M) and onion powder diet (O) were lower than those of diabetic rats fed mushroom (MD) and onion powder diet (OD) ( $p < 0.05$ ). Serum lipid of rats fed control diet, mushroom and onion powder diet were lower than those of diabetic rats (CD, MD, OD,  $p < 0.05$ ). However, creatine were not significant difference among control diet groups (C), mushroom (M), onion powder diet groups (O), diabetic rats fed control diet (CD), mushroom (MD), onion powder diet (OD). Dietary mushroom and onion powder diet were shown reduced blood glucose levels in streptozotocin-induced diabetic rats.