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Protective Effects of Boysenberry Anthocyanins on Oxidative Stress in Diabetic Rats

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The protective effects of major boysenberry anthocyanins (BoAnt) against oxidative stress were investigated in streptozotocin (STZ)-induced diabetic rats. Increases in the concentration of plasma thiobarbituric acid reactive substances (TBARS), and in the liver 8-hydroxy deoxyguanosine (8-OH dG)/deoxyguanosine (dG) ratio and also in the liver GSSG/GSH ratio, which were all observed in STZ-injected rats, were restored or tended to be restored to the level of the control rats when a diet with BoAnt was given to the diabetic animals. The susceptibility of the liver homogenate of the diabetic rats to the oxidation by AAPH was relieved when BoAnt was fed to them. These results suggested that BoAnt was effective in protecting the development of *in vivo* oxidation involved with diabetes.

Keywords: boysenberry, anthocyanins, diabetes, oxidative stress, thiobarbituric acid reactive substances (TBARS), 8-hydroxy deoxyguanosine (8-OH dG)

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