

Anti-Obesity Effect of Cordyceps militaris Fermented Black Rice

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Abstract : Obesity is defined as abnormal or excessive fat accumulation that presents a risk to health, which are major risk factors for a number of chronic diseases, including diabetes, cardiovascular diseases and cancer. Cordyceps militaris (CM) is a well-known traditional medicine in Asian countries and a rich source of biologically active components. Black rice (*Oryza sativa* L.) is a special cultivar of rice that contains rich anthocyanins and regarded as a health-promoting food in China and other Eastern. The aim of this study was to investigate the anti-obesity effect of Cordyceps militaris fermented black rice (CB) on HFD-induced BALB/c mice model. The results indicated that administration of low and high dosage of CB powder significantly reduced the body weights (7.38% and 7.78%), body fat ratio (2.37% and 2.78%), aspartate aminotransferase (AST) and alanine aminotransferase (ALT) levels compared to the HF group ($p < 0.05$). Histopathological analysis showed that the score of fatty liver in HF group (5.0) was significantly higher than CB groups (2.1 and 3.6) ($p < 0.05$). In conclusion, Cordyceps militaris fermented black rice can reduce the body weight via inhibition of the fat accumulation in liver and body and possess the anti-obesity potency.

Keywords : Cordyceps militaris, black rice, obesity, HFD-induced mice

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