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Antiobesity Effect of Isaria Sinclairii in Long-term Administrated Obese Zucker Rats

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Association of obesity, non-insulin-dependent diabetes mellitus (NIDDM) and arterial hypertension are leading causes associated with increased cardiovascular morbidity and mortality. Genetically obese (fa/fa) Zucker rats were used as experimental models; Four groups were orally treated each samples; saline as the control, ethanol extracts of I. sinclarii, hot water extract of I. sinclarii and Xenical (30 mg/kg) as the positive control with standard diet every day for a period of 8 weeks. Mild decreases (6.3%) compared to control in body weight gain were observed dose-dependently in hot water extract of I. sinclairii treated groups in dose response manner after 8 weeks. Interestingly, the weight of abdominal adipose tissues surrounding epididymides was greatly reduced by this Dongchunghacho, in parallel with the mild increase in body weight gain. In case of one month administrated SHR (spontaneously hypertensive rat) and Wistar Kyoto Rat (WKY), SHR group treated hot water extract of IS, also displayed body weight decrease (two times) than WKY group's. The absolute weight change of heart weight /body weight observed 4.1% decrease compared to control group. From these results, it is concluded that I. sinclainii have anti-obesity agent as a potent naturally occurring candidate in rats in the present study

Keyword: Isaria sinclairii, obesity