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In Vitro Antioxidant and Anti-inflammatory Activities of *Cordyceps militaris* Extract
○Yu Su SHIN¹, Chang Yeol YANG¹, Gwi Yeong JANG¹, Ah Young LEE², Ji Hyun KIM²,
Ji Hye YOON¹, Jehun CHOI¹, Eun Ju CHO², Takako YOKOZAWA³, Chan Hum PARK¹
(¹Rural Development Administration, Korea, ²Pusan National University, Korea,
³University of Toyama, Japan)

【Objectives】 This study was conducted to *in vitro* antioxidant and anti-inflammatory activities of ethanolic extract from *Cordyceps militaris* (CME).

【Materials and Methods】 Antioxidant potential, total phenolic and flavonoid contents of CME were determined by Folin-Ciocalteu method and the aluminum chloride colorimetric method, respectively. Antioxidant activity of CME was measured by following some well-established methods for free radical scavenging such as 2,2-diphenyl-picrylhydrazyl hydrate and 1,2,2-azinobis-(3-ethylbenzothiazoline-6-sulfonic acid). Moreover, Anti-inflammatory activity of CME was determined by measuring the inhibition of nitric oxide (NO) production in lipopolysaccharide/interferon- γ -activated RAW 264.7 macrophage-like cells. In addition, cytotoxicity of CME against macrophages was determined by MTT assay.

【Results】 Our results showed that total phenolic content was 19.7 mg gallic acid/g extract. Total flavonoid content was 5.0 mg Naringin/g. Its antioxidant activity was assessed by IC₅₀ value and the values are 338.8 μ g/ml (DPPH radical scavenging), 35.4 μ g/ml (ABTS radical scavenging). In addition, CME attenuated NO production through the reduction of cellular inducible NO synthase protein expressions. Using MTT assay on indicate that CME showed no toxicity.

【Conclusion】 These results provide important evidence that CME can potentially be used to antioxidant and anti-inflammatory agents.