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Biological activity and characteristics of *paecilomyces tenuipes* by fermentation

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Introduction: *Paecilomyces tenuipes* is a kind of thing called cordyceps, vegetable wasps and plant worms, winter worm summer grass or vegetable worms. Cordyceps has been known since ancient times for its properties of retarding aging and promoting long life. It can modulate immune responses, inhibit the growth of tumor cell, enhance hepatic energy, promote the secretion of adrenal hormones and possess hypotensive and vasorelaxant activities.

Object: In order to increase the active ingredient and improve the absorption ability of *Paecilomyces tenuipes*, we fermented *Paecilomyces tenuipes* using *Lactobacillus brevis*, *Bacillus subtilis*, *Bacillus licheniformis*, and *Saccharomyces cerevisiae*.

Methodology: The fermentation period was 15 days. Components of the fermentation products such as pH, protein, reducing sugar, etc. were measured. The protein molecular weight pattern was confirmed by electrophoresis. During the fermentation period, changes in physiologically active substances such as tyrosinase inhibitory activity, antioxidant activity, total polyphenol compound content and total flavonoid content were observed

Conclusion & Significance: Fermentation of *Paecilomyces tenuipes* has increased the antioxidant capacity, total polyphenol content and total flavonoid content, and thus the pharmacological effect by the fermentation of *Paecilomyces tenuipes* is expected to be increased.

Biography

You-Young Jo has her expertise in development of technology using sericultural products such as silk worm, silk protein, cordyceps from silkworm. She is working at the Rural Development Administration for sericultural farmer in the Korea.

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