

Extracts from reishi mushroom and green tea shows synergistic effect to slow sarcoma

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Both the reishi mushroom (*Ganoderma lucidum*; Lingzhi) and green tea have long held a place in traditional medicine in China and other Asian countries, for the general promotion of health and long life and for the treatment of specific diseases. More recent scientific studies have confirmed that both enhance the body's immune functions and hold the potential for treatment and prevention of many types of cancer.

Now a new study by Chinese scientists found that combining the active ingredients in the mushroom and the tea creates synergetic effects that inhibited the growth of tumors and delayed the time of death in mice with sarcomas.

Yan Zhang, of Pharmanex BJ Clinical Pharmacology Center in Beijing, reported the results of two studies at Experimental Biology 2008 in San Diego on Tuesday, April 8. The presentation was part of the scientific program of the American Society for Pharmacology and Experimental Therapeutics (ASPET).

Reishi grows in damp, sunless mountain areas and was once a rare commodity. Today Reishi, like green tea polyphenols, is manufactured as an extract. Zhang and her colleagues examined products sold as ReishiMax and Tegreen, made by Utah-based Nu Skin Enterprises. ReishiMax contains high concentrations of the active components in the mushroom itself and cracked spores of the mushroom, including polysaccharides (13.5 percent) and triterpenes (6 percent), and Tegreen is almost completely (98-99 percent) made of tea polyphenols.

In the first study, designed to look at cancer treatment, mice were first injected intraperitoneally with sarcoma cells and then were given either low, medium or high dosages of ReishiMax or low, medium, or high dosages of a combination of ReishiMax and Tegree. A control group received neither product. All mice died of sarcoma development after treatment for 28 days. But treatment with the combination of reishi and green tea extracts delayed the animals¹ death within the first 12 days after sarcoma injection, compared to the animals receiving only ReishiMax.

In the second study, designed to look at cancer prevention, groups of healthy mice were given either low, medium or high dosages of ReishiMax or low, medium, or high dosages of a combination of ReishiMax and Tegreen. A control group received neither product.

After receiving the specified treatment for 14 days, mice were given a suspension of sarcoma cells subcutaneously, while the treatments were continued. On day 28, the sarcoma tumors under the skin were recovered from the mice and weighed. The tumor weight was reduced by 45 percent with the combination therapy, but in a much lesser degree with only the Reishi, compared to tumors in mice receiving no treatment, further confirming the synergy of the two together.

Source: Federation of American Societies for Experimental Biology

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