

Reishi

Latin Name: Ganoderma lucidum

IMMUNO-STIMULANT; ALLERGIES; NERVINE

Use Whole Mushroom - Body and Stem

HISTORY: Traditional CHINESE Medicine (TCM)

QUALITIES

1) Stimulates IMMUNE System; Stimulates T-cell activity; Antibacterial; Inhibits HIV Virus replication; AIDS; Wasting diseases; Protects against Cancer; reduces Side Effects of CHEMOTHERAPY; Helps make Chemotherapy more effective; Helps restore white blood cell counts to normal levels

- STUDY (immunity and cancer): ... 34 advance-stage cancer patients were treated with 1800 mg extract, three times daily orally before meals for 12 weeks. Treatment resulted in a significant increase in the mean plasma concentrations of interleukin, interferon and in the mean NK (natural killer) activity compared to baselines. The present study indicates that Reishi extract enhanced the immune response in patients with advanced-stage cancer. (Gao 2003)

- Lower UT Symptoms (LUTS); Prostate Health

- STUDY (LUTS; prostate health): An extract (6 mg once a day) was effective & significantly superior to placebo for improving total International Prostate Symptom Score (IPSS) in a 12-wk double-blind, placebo-controlled, randomized study of 88 men over 49 years with slight-to-moderate lower urinary tract symptoms. (Noguchi 2008)

2) ALLERGY symptoms; Strong Anti-Histamine action; Inhibits histamine release; Reduces Allergic inflammatory response; Mushroom Poisoning Antidote

3) NERVINE; Tonic; Stimulant; Vitality; Revitalizes the body; Chronic Fatigue Syndrome; Relieves Nerve Exhaustion

- AND OPPOSITE: Soothes Nerves; Calms Nerves; Relaxant; relaxes Muscles; Insomnia

4) Anti-Aging; Anti-Oxidant; Degenerative diseases; Inflammation; Arthritis

- STUDY (inflammation):level of inflammatory cytokine IL-18 was significantly lower in patients using reishi with rheumatoid arthritis taking a standard preparation for 24 weeks than in the placebo group. (Xi 2006)

5) OTHER

- Regenerates LIVER; Viral Hepatitis; Protects Liver against Chemical and Toxic Damage

- Lowers Serum Cholesterol and triglycerides; Coronary Arteries; Normalizes Blood Pressure; Improves Circulation; Helps prevent Blood Clots; inhibits Platelet Aggregation; reduces HEART risk

- Supports Adrenal function; Alleviates effects of STRESS

CAUTION: Some have temporary side effects of toxin removal with Initial intake period including: Dizziness; Sore Bones; Itchy Skin; Increases Bowel Movements; Hardened Feces; Pimple-like eruptions. Symptoms vary and subside with continued Reishi intake.

- May increase effects of Blood Thinners

Reishi References

Herb History and General Information

Memorial Sloan Kettering Cancer Center. See www.abouterbs.com accessed July 28, 2014

Ritchason, Jack, N.D., *The Little Herb Encyclopedia*. Pleasant Grove, Utah: Woodland Health Books; 1995; pp 152-153, 343

Studies

Gao Y, Zhou S, Jiang W, Huang M, Dai X. Effects of ganopoly (a Ganoderma lucidum polysaccharide extract) on the immune functions in advanced-stage cancer patients. *Immunol Invest*. 2003 Aug;32(3):201-15. [PubMed]

Noguchi M, Kakuma T, Tomiyasu K, Yamada A, Itoh K, Konishi F, Kumamoto S, Shimizu K, Kondo R, Matsuoka K. Randomized clinical trial of an ethanol extract of Ganoderma lucidum in men with lower urinary tract symptoms. *Asian J Androl*. 2008 Sep;10(5):777-85. Epub 2007 Dec 20. [PubMed]

Xi Bao Y, Kwok Wong C, Kwok Ming Li E, Shan Tam L, Chung Leung P, Bing Yin Y, Wai Kei Lam C. Immunomodulatory effects of lingzhi and san-miao-san supplementation on patients with rheumatoid arthritis. *Immunopharmacol Immunotoxicol*. 2006;28(2):197-200. [PubMed]

Additional info on Studies:

LUTS; PROSTATE HEALTH

An extract of *G. lucidum* (6 mg once a day) was effective & significantly superior to placebo for improving total International Prostate Symptom Score (IPSS) in a 12-wk double-blind, placebo-controlled, randomized study of 88 men over 49 years with slight-to-moderate lower urinary tract symptoms. Noguchi 2008

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Abstract

AIM: To evaluate the safety and efficacy of an extract of *Ganoderma lucidum* that shows the strongest 5 α -reductase inhibitory activity among the extracts of 19 edible and medicinal mushrooms by a double-blind, placebo-controlled, randomized and dose-ranging study in men with lower urinary tract symptoms (LUTS).

METHODS: In this trial, we randomly assigned 88 men over the age of 49 years who had slight-to-moderate LUTS to 12 weeks of treatment with *G. lucidum* extract (6 mg once a day) or placebo. The primary outcome measures were changes in the International Prostate Symptom Score (IPSS) and variables of uroflowmetry. Secondary outcome measures included changes in prostate size, residual urinary volume after voiding, laboratory values and the reported adverse effects.

RESULTS: *G. lucidum* was effective and significantly superior to placebo for improving total IPSS with 2.1 points decreasing at the end of treatment (mean difference, -1.18 points; 95% confidence interval, -1.74 to -0.62; $P < 0.0001$). No changes were observed with respect to quality of life scores, peak urinary flow, mean urinary flow, residual urine, prostate volume, serum prostate-specific antigen or testosterone levels. Overall treatment was well tolerated with no severe adverse effects.

CONCLUSION: The extract of *G. lucidum* was well tolerated and improved IPSS scores. These results encouraged a further, large-scale evaluation of phytotherapy for a long duration using the extract of *G. lucidum* on men with LUTS.

IMMUNE RESPONSE with ADVANCED-STAGE CANCER

Ganopoly (a *Ganoderma lucidum* polysaccharide extract) enhanced the immune responses in patients with advanced-stage cancer. Gao 2003

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Abstract

Preclinical studies have established that the *Ganoderma lucidum* polysaccharide (GLPS) fractions have potent anti-tumor activity, which has been associated with the immuno-stimulating effects of GLPS. However, it is unclear whether GLPS has immuno-modulating effects in humans in vivo. This study aimed to investigate the effects of Ganopoly, the polysaccharides fractions extracted from *G. lucidum*, on the immune function of advanced-stage cancer patients. Thirty-four advanced-stage cancer patients were entered onto this study, and treated with 1800 mg Ganopoly, three times daily orally before meals for 12 weeks. Immune parameters (cytokines, T cell subsets, mitotic response to phytohemagglutinin (PHA) and natural killer activity) were compared between baseline and after 12-week treatment. Thirty patients are assessable for their immune functions. Treatment of Ganopoly for 12 weeks resulted in a significant ($P < 0.05$) increase in the mean plasma concentrations of interleukin (IL-2), IL-6, and interferon (IFN)-gamma, whereas the levels of IL-1 and tumor necrosis factor (TNF-alpha) were significantly ($P < 0.05$) decreased. A marked variability among patients with advanced-stage cancer was observed in the numbers of each lymphocyte subset at baseline. The mean absolute number of CD56+ cells was significantly ($P < 0.05$) increased after 12-week treatment of Ganopoly, whereas the numbers of CD3+, CD4+,

and CD8+ were just marginally increased compared to baseline levels, with the CD4:CD8 T cell ratios unchanged. PHA responses after 12-week treatment with Ganopoly were enhanced in most patients, when compared to pretreatment baselines ($P < 0.05$). In addition, Ganopoly treatment resulted in a significant increase ($P < 0.05$) in the mean NK activity compared to baselines (34.5 +/- 11.8% vs 26.6 +/- 8.3%). The present study indicates that Ganopoly enhanced the immune responses in patients with advanced-stage cancer. Clinical evaluations of response and toxicity are ongoing.

INFLAMMATION - ARTHRITIS

The percentage change in ex vivo-induced level of inflammatory cytokine IL-18 was significantly lower in the TCM patients with rheumatoid arthritis taking a standard preparation of *G. lucidum* and San-Miao-San than in the placebo group after taking the capsules for 24 weeks ($p < 0.05$). Xi 2006

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Abstract

Rheumatoid arthritis (RA) is an autoimmune joint disease. We evaluated a standard preparation of Lingzhi (*Ganoderma lucidum*) and San-Miao-San (*Rhizoma atractylodis*, *Cortex phellodendri*, *Radix achyranthes bidentatae*) capsules (TCM group) for its supplementary treatment efficacy for RA. There was no significant difference in the absolute count, percentage, and ratios of CD4(+)/CD8(+)/natural killer/B lymphocytes between the TCM and placebo groups after taking the capsules (all $p > 0.05$). There was no significant change in concentrations of plasma cytokines of interferon-gamma-induced protein-10 (IP-10), monocyte chemoattractant protein-1, monokine induced by IFN-gamma, regulated upon activation normal T-cell expressed and secreted, interleukin (IL)-8, and IL-18 after taking the capsules for 8 and 24 weeks (all $p > 0.05$). The percentage change in ex vivo-induced level of inflammatory cytokine IL-18 was significantly lower in the TCM group than in the placebo group after taking the capsules for 24 weeks ($p < 0.05$). Therefore, Lingzhi and San-Miao-San capsules might exert a beneficial immunomodulatory effect in patients with rheumatoid arthritis.