Red ginseng, vitamin C may increase immune cell activity

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(HealthDay)—Red ginseng and vitamin C enhance immune cell activation and suppress viral infection in mice, according to an experimental study published online Feb. 21 in the *Journal of Pharmacy and Pharmacology*.

Hyemin Kim, from the Seoul National University in South Korea, and colleagues examined the anti-viral effects of red ginseng and vitamin C on influenza A virus/H1N1 infection in mice genetically incapable of synthesizing vitamin C like humans (*Gulo[?/?]*).

The researchers found that red ginseng and vitamin C increased the expression of peripheral blood mononuclear cells and natural killer (NK) cells. In *Gulo(?/?)* mice, red ginseng and vitamin C increased the expression of NKp46, a natural cytotoxic receptor of NK cells and interferon-? production. In the lungs of vitamin C-depleted *Gulo(?/?)* mice, influenza infection increased inflammation and viral plaque accumulation and decreased survival rates; however, inflammation and viral plaque accumulation were substantially reduced by red ginseng and vitamin C supplementation.

"Administration of red ginseng and vitamin C enhanced the activation of immune cells like T and NK cells, and repressed the progress of viral lytic cycle," the authors write.

More information: Abstract
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