



MedGenMed. 2004; 6(3): 9.

PMCID: PMC1435598

Published online 2004 July 21.

A Case Report of Suspected Ginseng Allergy

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Disclosure: Viroj Wiwanitkit, MD, has no significant financial interests or relationships to disclose.

Disclosure: Wirach Taungjaruwainai, MD, has no significant financial interests or relationships to disclose.

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Ginseng is the dried root of one of several species of the Araliaceae family of herbs. The most commonly used type is Asian ginseng (*Panax ginseng*), often sold as Chinese or Korean ginseng. The main active components of ginseng are ginsenosides, which are purported to have a variety of beneficial effects, including anti-inflammatory, antioxidant, and anticancer effects.[1] In addition, results of clinical research studies suggest that ginseng may improve psychological function, immune function, and conditions associated with diabetes.[1] At present, ginseng is widely used in some populations as a tonic agent; several tonic products with ginseng as a remedy are currently on the market. We report here our experience on a case of possible anaphylactic reaction to ginseng.

In 1999, a 20-year-old male medical student at Chulalongkorn Medical School, in Bangkok, Thailand, was sent to the physician at the emergency room with the symptoms of generalized urticarial rash and difficulty in breathing. During a class, he ingested a sip of ginseng syrup and noted that the sickness symptoms occurred suddenly, about 3 minutes after ingestion. The canned ginseng syrup was a local product; its label confirmed the contents: syrup and ginseng. The student was therefore sent to the emergency room of the hospital. He had no history of a syrup or other additive allergy.

At the emergency room, about 5 minutes from the classroom, he was found to be fully conscious. He developed hypotension: the first reading blood pressure was 90/60 mmHg. His pulse rate was 96/min. Wheezing was found on examination of the lungs. His heart sounds were normal. Discrete erythematous papules and angioedema were seen on the extremities, trunk, neck, face, feet, and hands. He had puffy erythematous eyelids and conjunctiva swelling bilaterally. He was promptly treated by intravenous steroid (dexamethasone 5 mg) and admitted to the emergency room for observation. Twenty minutes after admission, his blood pressure returned to normal (120/80 mmHg), wheezing ceased, and his difficulty in breathing ceased. Then he was sent to the ward in the hospital. His skin lesions gradually diminished: the urticaria diminished after admission and the papules completely diminished within 1 day. Oral prednisolone 10 mg every 8 hours was prescribed for him on the ward for 1 day and continued as home medication. He fully recovered within 1 day and was discharged. He was diagnosed with a possible ginseng allergy. The sudden, severe, potentially fatal, systemic allergic reaction involving various areas of the body, including the skin and respiratory and cardiovascular systems, in this case suggests an actual diagnosis of anaphylactic reaction.

It is interesting that ginseng is widely touted and used for its possible antiallergic effect.[2] Smolina and colleagues[3] reported that ginseng provided increased resistance to coli-sepsis in mice, increased neutrophil and macrophage phagocytosis, stimulated humoral and cell immune factors, and induced important regulating cytokine-interferon gamma and tumor necrosis factor. In contrast, we report the opposite: a possible case of anaphylactic reaction due to Asian ginseng. Using the standard search methodologies, we have found no other reports of this kind of allergic reaction to Asian ginseng. There have been some reports of allergic reactions to Brazilian ginseng (*Pfaffia paniculata*), mostly in the form

of respiratory tract hypersensitivity.[4,5] Subiza and coworkers[4] reported a case of respiratory allergy and asthmatic attack after respiratory exposure to Brazilian ginseng root powder, proven by provocative sensitization test.

In the case reported here, the patient was exposed to Asian ginseng syrup by ingestion, and developed much more than respiratory allergy, with skin and blood pressure effects. I believe that this was actual anaphylaxis which can, of course, be fatal. Unfortunately, the confirmation by sensitization was not performed and the patient refused further immunologic investigation. Because Asian ginseng is a widely used herb and seems to be growing in popularity, awareness of the potential for serious — although apparently rare — undesired side effects, such as allergy, merits this publication.

Acknowledgments

The authors hereby would like to thank all medical personnel who took part in attending to this case.

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