Evaluation of Ginseng and its Effectiveness Concerning Type 2 Diabetes Blood Glucose Control

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SUPPLEMENT

Asian ginseng (*Panax ginseng*) is taken orally for its preconceived mediation of blood glucose for those who have type 2 diabetes. Asian ginseng roots can be prepared differently in the form of red ginseng or white ginseng. White ginseng is dried after harvest and can be available as a powder whereas red ginseng is exposed to temperatures ranging from 120-130℃ which can subsequently destroy enzymes.1 How ginseng is prepared is diverse in the studies available and has produced some gray areas arising from their results because of it. Ginsenosides or panaxosides are thought to be the most important makeup of Asian ginseng for its health benefits.2

RESEARCH EVIDENCE

The National Center for Complementary and Integrative Health states that patients who use oral hypoglycemics or insulin need to be weary of hypoglycemia when consuming Asian ginseng. Insomnia, headaches, and gastrointestinal problems are reported as the most common side effects of prolonged ginseng intake.3 Other side effects of ginseng are as follows: menstrual problems, breast pain, increased heart rate, high or low blood pressure, and loss of appetite. It seems to note that short term usage of oral ginseng has limited safety precautions surrounding it yet could potentially be unsafe during pregnancy due to birth defect risk.2 Fermented red ginseng was the supplement used for a randomized, double-blind, placebo-controlled clinical trial published in 2014. Fermentation of ginseng allows for ginsenosides to be more absorbable and potent compared to deglycosylated versions. Forty-two participants with impaired fasting glucose (23 participants) or type 2 diabetes (19 participants) consumed either the supplement or a placebo three times a day for four weeks while monitoring fasting and postprandial glucose under their usual eating habits. The two groups had no significant differences between age, gender, height, weight, BMI, or fasting glucose levels between them. Hypoglycemia was seen in the supplement group. With statistical significance, lowered postprandial glucose levels and increased insulin levels were seen in participants who took the fermented red ginseng supplement.4

CONCLUSION

Supplements such as ginseng have been used throughout various cultures for thousands of years and should not be abandoned due to lack of clinical trials. Medical professionals should seek an understanding relationship with their patients rather than a shaming standpoint as it could lead to secrecy of supplement usage; henceforth putting the patient at risk of drug-supplement interaction side effects. Shaming patients for desiring to take an active part in their health and wellness is counterproductive.5 Understanding the drug interactions of the specific medications is step one to being more confident in the client’s safety. The study discussed does seem to produce some validity of fermented red ginseng’s effects on blood glucose values but it would be appreciated to see these values on a larger sample size than forty-two (thirty-six after the study dropouts). The fermentation of red ginseng appears on the surface to allow for bodily absorption of these desired glucose effects yet it was not compared to other forms of ginseng in this study. Long-term effects should be considered in upcoming studies as someone wanting to control their blood glucose values most likely wouldn’t want a quick fix that is not sustainable in the long run. Personally, I have no desire to take ginseng but if a family member or friend opened up to me about their interest in ginseng, I would recommend talking with their physician before consuming. I would suggest looking into fermented forms of ginseng if consumed. Individuals with chronic bouts of hypoglycemia or who are not able to check their blood glucose levels often should avoid ginseng as well individuals who are pregnant or trying to become pregnant. A short term trial of under 6 months would be the ideal length as there still is questionable evidence surrounding long term side effects.

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