

Beta-carotene is Circulating in Livers of Diabetic Patients With Pancreatic Insufficiency

Authors: Amber Palmer MD Rebecca Baker Jeffrey Sims Timothy Knapp Erin Martin

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California Polytechnic State University-San Luis Obispo

School of Chemistry

There is an increasing number of studies that show that beta-carotene interacts with our food and circulates to the liver. A new study by Haruma Narazaki in JAMA/Archives of Internal Medicine, USA, shows that diabetes patients with pancreatic insufficiency have beta-carotene circulating in their livers. The results of the study are based on a population-based study in Japan, 2006-2008.

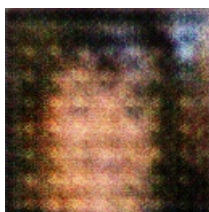
The Diabetes Society of Japan issued a report in 2008 indicating that about 90% of diabetes patients have pancreatic insufficiency. Pancreatic insufficiency may be a possible cause of 13% -17% of all pancreatic cancer cases, and of 6% -8% of pancreatic cancer deaths. Several studies have shown that beta-carotene has clinical and metabolic effects in human pancreatic cells and also that beta-carotene has anti-diabetic effects in the pancreas. However, human study has shown that beta-carotene doesn't penetrate the heart and circulatory system.

The authors examined whether beta-carotene can be used as a therapy for pancreatic insufficiency using a dietary intervention. They used the ethnographic dietary approach based on quantitative random sampling data of diabetics and then evaluated pancreas as well as liver for beta-carotene.

The researchers enrolled 46 Japanese diabetic patients who were vegetarians. These patients had pancreatic insufficiency. The participants were divided into two groups: one group was treated with a 10% β -carotene supplement and the other group was given non-vitamin E-containing supplements. Each group also gave daily dietary advice to the patients. The people in the β -carotene group were given diet advice and dietary supplement and the Vita-Bi Skin Show Diet Guide was recommended for them, and these people had a further year of diet advice. All patients had their livers, abdomens, and hearts compared with healthy control subjects, and their blood samples were taken to examine blood glucose and other biomarkers. All volunteers were followed for the following years.

The findings showed that β -carotene had a direct effect on the liver cells; so, the β -carotene was being partially excreted into the bloodstream from the liver. Therefore, the β -carotene was free of thrombosis. However, it also entered into the bloodstream from the liver and transmitted to the blood as beta-carotene ester, and there were signs of protein signature indicating beta-carotene being taken up by fat in the peripheral blood. There were signs of alpha-carotene in the liver.

It is necessary to verify that β -carotene can be used in the treatment of pancreatic insufficiency. The study also showed that deficiency of other macronutrients and fat particles also play an important role.



A Brown And Black Dog Is Standing In The Woods