A Whole-Food Vegan Ketogenic Diet for Treatment of Cancer

Avoidance of high-quality animal protein can slow the growth of some cancers, likely by down-regulating plasma levels of IGF-I, which often promotes cancer growth.1-3 Another dietary strategy capable of slowing the growth of some cancers is a ketogenic diet; this exploits the phenomenon that, owing to the Warburg effect, glucose is the preferred food for many aggressive cancers.4-11 The low insulin associated with ketogenic diets might also have a growth retardant effect in some cancers, in part by reducing systemic IGF-I bioactivity.3 This raises the possibility that a vegan ketogenic diet – featuring nuts and seeds, olives, avocados, whole soy products (edamame, tofu), and vegetables – consumed as “finger food”, or blended together in salads dressed with medium-chain triglycerides, plant oils, and vinegar - might be of particular merit for cancer control. And such a diet, aside from being monotonous, would likely be sustainable, as it could be high enough in calories to sustain weight, and calorie intake could be ad libitum. (A proviso is that soy intake should be moderated, as this would be the highest protein component of the diet, and high soy intake can raise IGF-I in vegans;12,13 intake of isolated soy protein products would be contraindicated.) Jenkins and colleagues have proposed an “Eco-Atkins” diet strategy – a vegan diet low in carbohydrates – as a measure for improving cardiovascular risk factors; the diet suggested here is a more carb-restricted version of this proposal.14 Although a formula diet could be devised to serve the same purpose, a diet composed of natural whole foods would likely be more acceptable to most patients for long-term use.

A further advantage of this diet should be an improvement in muscle insulin sensitivity that down-regulates diurnal insulin secretion; this follows from the fact that the diet will be very low in saturated fat, and hence have a high ratio of saturated fat, which can be expected to favorably impact insulin sensitivity of muscle.15 This should interact with the very low carbohydrate content of the diet to maintain low insulin levels throughout the day.

References


