Potential attenuation of disease progression in recurrent prostate cancer with plant-based diet and stress reduction.

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Abstract
A rising level of prostate-specific antigen (PSA), after primary surgery or radiation therapy, is the hallmark of recurrent prostate cancer and is often the earliest sign of extraprostatic spread in patients who are otherwise asymptomatic. While hormonal therapy may slightly extend survival in a minority of patients, it is not curative and produces side effects including hot flashes, decreased libido, and loss of bone mass. Alternatively, dietary modification may offer an important tool for clinical management. Epidemiologic studies have associated the Western diet not only with prostate cancer incidence but also with a greater risk of disease progression after treatment. Conversely, many elements of plant-based diets have been associated with reduced risk of progression. However, dietary modification can be stressful and difficult to implement. We therefore conducted a 6-month pilot clinical trial to investigate whether adoption of a plant-based diet, reinforced by stress management training, could attenuate the rate of further PSA rise. Urologists at the University of California, San Diego, and San Diego Veterans Affairs Medical Centers recruited 14 patients with recurrent prostate cancer. A pre-post design was employed in which each patient served as his own control. Rates of PSA rise were ascertained for each patient for the following periods: from the time of posttreatment recurrence up to the start of the study (prestudy) and from the time immediately preceding the intervention (baseline) to the end of the intervention (0-6 months). There was a significant decrease in the rate of PSA rise from prestudy to 0 to 6 months (P < .01). Four of 10 evaluable patients experienced an absolute reduction in their PSA levels over the entire 6-month study. Nine of 10 had a reduction in their rates of PSA rise and an improvement of their PSA doubling times. Median PSA doubling time increased from 11.9 months (prestudy) to 112.3 months (intervention). These results provide preliminary evidence that adoption of a plant-based diet, in combination with stress reduction, may attenuate disease progression and have therapeutic potential for clinical management of recurrent prostate cancer.

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