Intensive lifestyle changes may affect the progression of prostate cancer.


Abstract

PURPOSE: Men with prostate cancer are often advised to make changes in diet and lifestyle, although the impact of these changes has not been well documented. Therefore, we evaluated the effects of comprehensive lifestyle changes on prostate specific antigen (PSA), treatment trends and serum stimulated LNCaP cell growth in men with early, biopsy proven prostate cancer after 1 year.

MATERIALS AND METHODS: Patient recruitment was limited to men who had chosen not to undergo any conventional treatment, which provided an unusual opportunity to have a nonintervention randomized control group to avoid the confounding effects of interventions such as radiation, surgery or androgen deprivation therapy. A total of 93 volunteers with serum PSA 4 to 10 ng/ml and cancer Gleason scores less than 7 were randomly assigned to an experimental group that was asked to make comprehensive lifestyle changes or to a usual care control group. None of the experimental group patients but 6 control patients underwent conventional treatment due to an increase in PSA and/or progression of disease on magnetic resonance imaging. PSA decreased 4% in the experimental group but increased 6% in the control group (p = 0.016). The growth of LNCaP prostate cancer cells (American Type Culture Collection, Manassas, Virginia) was inhibited almost 8 times more by serum from the experimental than from the control group (70% vs 9%, p <0.001). Changes in serum PSA and also in LNCaP cell growth were significantly associated with the degree of change in diet and lifestyle.

CONCLUSIONS: Intensive lifestyle changes may affect the progression of early, low grade prostate cancer in men. Further studies and longer term followup are warranted.

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