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Control of the Aggressive Capacity of Prostate Cancer by Nutritional Inhibitors of Urokinase and Lipoxxygenase

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ABSTRACT Pytochemicals of food and herbs are very potent antioxidants and free radical scavengers. It is accepted that these chemicals minimize DNA damage by reacting with free radicals and in this way they could prevent cancer. However, in some studies antioxidants increase incident of cancers instead of lowering it. These trials have caused a rethinking of the use of natural compounds as chemoprevention agents utilizing anti-oxidant concept. It was hypothesized instead that elements of food could react with enzymes crucial for cancer formation and growth. We choose two of these as an illustration of a concept. Urokinase and lipoxxygen-ases are enzymes of a profound impact on cancer cells growth, metastasis and invasiveness. This article provides review of natural compounds, mostly antioxidants that are inhibitors of lipoxxygenase and urokinase. Inhibition of these enzymes by food elements could prevent or reduce cancer growth in this way rather than utilizing antioxidant pathway.

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