Rosemary and cancer prevention: preclinical perspectives.


Source

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Abstract

Colorectal cancer is the second leading cause of cancer death in Australia. Nutrition, particularly intake of vegetables and certain plant components, has been reported to have a major role in cancer risk reduction. Recently, there has been a growing research interest in rosemary, a common household plant grown in many parts of the world. This study aims to review scientific evidence from all studies, published from 1996 to March 2010 that examined the protective effects of rosemary on colorectal cancer and other types of cancer. Literature evidence from animal and cell culture studies demonstrates the anticancer potential of rosemary extract, carnosol, carnosic acid, ursolic acid, and rosmarinic acid. No evidence for other rosemary constituents was found. The reported anticancer properties were found to arise through the molecular changes in the multiple-stage process of cancer development, which are dose related and not tissue or species specific. This is evidenced by the ability of rosemary to suppress the development of tumors in several organs including the colon, breast, liver, stomach, as well as melanoma and leukemia cells. The results suggested that the different molecular targets modulated by rosemary and its active constituents are useful indicators of success in clinical cancer chemo-prevention trials.

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