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TITLE

Role of Natural Antioxidants in Cancer Chemotherapy

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One novel strategy for increasing the efficacy of anticancer drugs involves co-administration of naturally occurring antioxidants along with standard chemotherapeutic protocols with Cisplatin like anticancer drugs. It appears that resistance to some chemotherapeutic agents, such as alkylating agents and platinum complexes is multifactorial. Because of the expected safety during long term administration, the diet derived chemopreventive and chemotherapeutic compounds are of high interest.

There are several approaches for the primary prevention of cancers; one effective way is to modify daily habits including dietary nutrients. So, researchers have focused diet and therapy as the best way in cancer chemoprevention. Chemoprevention is defined as the use of natural compounds to prevent or to inhibit (or) reverse the process of carcinogenesis.

The natural compounds are used for the treatment of various cancers in experimental animals. The dietary nutrients such as curcumin, piperine, mangiferin, and naringenin are found to be very effective in minimizing the side effects induced by the anticancer drugs during chemotherapy. The antioxidants and their chemopreventive/chemotherapeutic efficacy in experimental cancers will be discussed in the light of available literature.

Biography

Prof. Dr. D. Sakthisekaran has completed his Ph.D at the age of 34 from the University of Madras. He has joined as lecturer in the Department of Medical Biochemistry, University of Madras in the year 1978 and subsequently promoted as a Reader and Professor in 1988 and 1994 respectively. He has published more than 100 papers in reputed journals and also written four text books in Biochemistry as Chair person. He has received many awards for his contribution in the field of Basic Medical Sciences. He has won Indian Council of Medical Research Award (Govt of India) in 2003 and Tamil Nadu Scientist Award in the year 2005. He has also received SOMPS Poster Award from ICACT, Paris, France in 2008. He has guided 32 PhD's and all of them are well placed in India and abroad. He was the Editor in Chief of the journal BIOMEDICINE published by the Indian Association of Biomedical Scientists. Recently his name has been included in the Marquis Who's Who Publications. Presently he is heading the Department of Medical Biochemistry, University of Madras from July 2008 onwards.