

Chemopreventive Effects of Curcumin Analogs in DMH-Induced Colon Cancer in Albino Rats Model.

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Abstract

Synthesis and preclinical safety evaluation in mice and rats of Curcumin (1) and curcumin analogs (2, 3) were done. Besides, the chemopreventive effects in DMH-induced colon cancer in albino rats model were performed. Sections of mammary gland, heart, kidney, liver, spleen, and colon were done. Administration of the prophylactic treatment for four weeks before the induction of cancer by DMH, showed that compound 3 is the most active one. Chemopreventive treatment with different forms of curcumin extracts for 2 and 4 weeks caused a reduction in the number of aberrant crypt foci (ACF) especially compound 3. Chemopreventive treatment with different forms of curcumin extracts for 2 and 4 weeks caused a reduction in the number of tumor cells.

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