



Original Article

Biochemical Effect of Some Antioxidant on Metabolic Changes in Experimentally induced Tumor in Female Mice

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Abstract

Biochemical effect of tannic acid and curcumin on female mice experimentally induced Ehrlich Ascitis Carcinoma (EAC) was investigated. This study was carried out on 220, 12-14 weeks old female mice and weighted 25-30 g. Mice were classified into two main large experiments. Experiment 1: Non-tumor bearing mice (NTB) Included 100 of animals and divided into four groups each one comprised 25 mice. Group 1: NTB- control saline treated .Group 2:NTB-treated with curcumin orally (350 mg/kg/day) for 6 weeks. Group 3:NTB-treated with tannic acid orally (160 mg/kg/day) for 6 weeks. Group 4:NTB-treated with curcumin and tannic acid orally at ratio (50% : 50%) for 6 weeks. Experiment 2: Tumor bearing (TB) mice. Included 120 of animals and divided into four groups each one comprised 30 mice. Group 1:TBM-control saline treated. Group 2: TBM-treated with curcumin orally (350 mg/kg/day) for 6 weeks. Group 3:TBM-treated with tannic acid orally (160 mg/kg/day) for 6 weeks. Group 4:TBM-treated with curcumin and tannic acid orally at ratio (50%: 50%) for 6 weeks. Blood samples were collected from all animals groups after 2, 4 and 6 weeks from treatment. Serum were separated and processed directly for glucose, insulin, total cholesterol, triacylglycerol, total protein determination. The obtained results revealed that, a highly significant decrease in serum glucose, total cholesterol, total protein concentration. Mean while, a highly significant increase in serum triacylglycerol concentration. But a non significant decrease in serum insulin levels were observed in tumor bearing mice when compared with control. The results of this study indicated that curcumin, tannic acid and their combination treatment have potential benefits in cancer treatment.

Kew words: Curcumin, tannic acid, triacylglycerols, tumor and anticancer.

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