

P64

IN VIVO ANTITUMOR EFFECTS OF READY-TO-EAT RAW POWDERED DIETS

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Antitumor effects of ready-to-eat raw powdered diets were tested using sarcoma-180 cells transplanted Balb/c mouse. The raw diets used in this study were cancer preventive diets which were developed in our laboratory(Diet I, II) and commercial ready-to-eat raw powdered diets(Diet A, B) in Korea. The cancer preventive raw diet recipes were prepared using the food exchange system, and were mixed with various ingredients such as Brown rice, Job's tears, sorghum(cereals group), black soybean(legumes group), perilla seeds(oil seeds group), pine needle, *Angelica utilis*, purslane, kale, sea tangle and small water dropwort(vegetables group). The tumor formation, hepatic glutathione S-transferase(GST) activity and glutathione(GSH) levels were determined from the sarcoma-180 cell transplanted mice that were treated with methanol extracts from various raw diets. The tumor growth induced by the sarcoma-180 cells were significantly suppressed in the mice that fed the cancer preventive diets. The hepatic GST activity and GSH level were shown to be increased in these groups($p < 0.05$). The cancer preventive raw diets(Diet I and II) exhibited higher antitumor effect than the commercial raw diets(Diet A and B). Among the diet groups, Diet II was the most effective. The increased antitumor effect of the Diet II is probably due to the higher contents of cereal group and the pine needle.