[Antineoplastic effects of carnosine and beta-alanine--physiological considerations of its antineoplastic effects].

[Article in Japanese]
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Abstract

Antineoplastic effects of carnosine (CAR) and beta-alanine (ALA), were examined in vivo using ddY mice implanted with the solid tumor Sarcoma-180. The sarcoma was treated with trypsin, 10(5) cells were implanted subcutaneously in the back of the animals, and CAR and ALA were administered subcutaneously 2 cm from the implantation site starting on the next day. The animals treated with ALA alone showed prolongation of survival to a T/C value of 132%; the growth of the tumor was inhibited and mortality reduced in those treated with CAR alone. Regression of the tumor was observed in the animals treated with either drug. The effects of these agents were enhanced when administered in combination with the non-specific active immuno-enhancing agent OK-432. More than half the animals treated with CAR and OK-432 survived the observation period (T/C greater than 218%), and survival was prolonged in those treated with ALA and OK-432 to a T/C value of 132%. The agents also showed potent antineoplastic effects on Sarcoma-180 when the tumor had been attenuated in vivo with mitomycin C (MMC).

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