

## **Ameliorative effect of AHCC for anticancer drug-induced side effects**

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Active hexose correlated compound (AHCC) is a mixture of polysaccharides, amino acids, lipids and minerals derived from cultured mycelia of a Basidiomycete mushroom. AHCC is perceived to be a functional food to strengthen and optimize the capacity of immune system. At present, cancer patients are receiving AHCC with chemotherapy and radiotherapy to enhance their therapeutic effects and prevent the side effects. In this study, we investigated to scientifically prove the ameliorative effect of AHCC for various kinds of side effect caused by anticancer drugs such as cisplatin, 5-fluorouracil (5-FU), cyclophosphamide (CY), 6-mercaptopurine (6-MP) and methotrexate (MTX). Normal ddY mice were co-treated with these drugs and AHCC, and the preventive effect of AHCC was assessed. As a result, supplementation with AHCC improved nephrotoxicity and bone marrow suppression, erythrocyte cytotoxicity, and liver injury induced by cisplatin, 5-FU and CY, and 6-MP and MTX, respectively. In conclusion, this result demonstrates that AHCC can alleviate chemotherapy-induced side effects, and is beneficial for cancer patients treated with chemotherapy as a complementary and alternative supplement.