Histoculture drug response assay in Human colorectal cancer patients of novel Pt(IV) complex, K101 and nephrotoxicity test in ICR mice renal proximal tubular cells

Kwon Young-Ee*, Lee HwaJung*, Kang JeongHo*, Kim KukHwan**, Kim WonKyu$, No YiRan#, Kim MoonBo#

Drug Discovery Institute STC Life Science Center*, College of Pharmacy Dongduk Women's University**: College of Medicine Hanyang University$: MetaBio Reserch Center#

It is well known that cisplatin, one of chemotherapeutic agents, induces DNA damage and kill cancer cells mainly by apoptosis. We recently synthesized a novel Pt(IV)-based anticancer agent, trans,cis-Pt(acetato)2Cl2(1,4-butanediamine) (K101) with octahedral structure. To evaluate antitumor activity about human cancer of K101, we have performed histoculture drug response assay in 35 cases of colorectal cancer patients. Nephrotoxicity test was examined by biochemical assay and observed ultrastructural changes in renal proximal tubular cells by TEM. In histoculture drug response assay, K101 (20 microM) was shown about 54.7 % inhibition comparing with cisplatin (about 24 % in 10 microM). Serum levels of BUN, creatinine and uric acid in K101 administrated mice were not elevated. The ultrastructure of K101 administrated mice was less change than cisplatin administrated mice. The present study suggests that newly synthesized Pt(IV) complex, K101 was shown to be more effective than cisplatin against various antitumor tests. K101 has less renal toxicity than cisplatin.

Effect of oral administration of Ginsenoside-Rb2 on rotavirus infection

1Yoo Yung-Choon0, 2Lee Kyung-Bok

1 Department of Microbiology, 2 Department of Biochemistry, College of Medicine, Konyang University

Glycosaminoglycans(PT-Gag) were isolated from the porcine testis. From the PT-Gag, we obtained two different types of Gag fractions using Dowex macroporous Resin MSA-1 column. PT-Gag-1.5% NaCl and PT-Gag-16% NaCl. Various biological activities of the GAGs were examined in aspect of anticoagulant and immunomodulating activity. The anticoagulant activity of the GAGs was evaluated by activated partial thromboplastin time (aPTT ) assay and thrombin time (TT) assay. The GAGs of porcine testis markedly increased the clotting times of both of aPTT and TT, showing that PT-Gag-16% NaCl was more effective than PT-Gag-1.5% NaCl. The immunomodulating activity of the GAGs was examined in relation to regulation of cytokine production of murine peritoneal macrophages. Treatment with the GAGs prominently enhanced the production of cytokines, IFN-γ and TNF-α, from macrophages. Taken together, GAGs isolated from porcine testis possess biological functions such as anticoagulant and immunomodulating activity.

Administration of BCG-CWS in oil-in-water emulsion inhibits tumor growth and