CANCER CELL-LINES AND NORMAL KIDNEY CELLS

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We recently synthesized a new platinum(II) complex analog containing *cis*-1,2-diaminocyclohexane (DACH) as a carrier ligand and 1,3-dichloropropane(DCP) as a leaving group.
Our platinum-based drug discovery program has been aimed at developing drugs capable of diminishing toxicity and improving selective cytotoxicity. These platinum(II) complex [Pt(II)(*cis*-DACH)(DCP);PC] was synthesized and characterized by its high performance liquid chromatography, elemental analysis and various spectroscopic techniques(IR, NMR). PC showed acceptable and significant *in vitro* antitumor actvity against SKOV-3 and NIH-OVCAR human ovarian cancer cells as compared with that of cisplatin. The cytotoxicity of PC against primary cultured proximal tubular cells of rabbit kidney determined using the MTT assaying techniques and thymidine uptake tests were found to be quite less than those of cisplatin. Based on the these results, this novel platinum complex appear to be a valuable lead compound with high efficacy and low nephrotoxicity.

[PA4-9] [04/20/2001 (Fri) 10:30 - 11:30 / Hall 4]

The single dosing acute toxicity tests for newly developed surfactants for pacritaxel

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The commercially available pacritaxel product, Taxol is currently formulated in a vehicle containing approximately a 1:1 v/v mixture of polyoxyethylated castor oil (Cremophor EL) and ethanol. Cremophor EL, a commonly used surfactant for lipophilic compounds, has been associated with many issues, such as adverse effects particularly following rapid administration, stability with the possibility for drug precipitation upon dilution, and filtering requirements. It is thus apparent that there is a need for new surfactant of paclitaxel that are efficacious and less toxic than the commercial product. We have tried to develop such a new surfactant for pacritaxel, and performed the hemolysis test for chemicals which passed the paclitaxel-stabilizing test. 5 Chemicals showing relatively low hemolytic effects were tested for a single dosing toxicity test. LD50 for these chemicals were not achieved even at the maximal administrable dose, 5ml/Kg, at which Cremophor EL reached LD50. According to data based on body weight, mortality, dissection, hemological test, and biochemical test, these chemicals exhibited much more reduced toxicity than Cremophor EL.[This study has been supported from the MHW]

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Developmental immunotoxicity of di(n-butyl) phthalate in fetal rat

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Some of endocrine disruptors have sexual hormone like effects. These exogenous substances were suspected of immunodeficiency, which have been increasingly reported in many species. Phthalate esters are kinds of endocrine disruptors. Perinatal exposure to di(n-butyl) phthalate(DBP) have been reported to impair the androgen-dependent development of the male reproductive tract malformations in rat. Therefore, the immunomodulatory effect of DBP was investigated in the developing immune