dismutase(SOD) and glutathione peroxidase(GPX) activities increased in 3 hrs and then decreased or equaled in 6 hrs. The cell viability was declined and the antioxidant enzyme activities changed at 2.5 mM H2O2 and 50 uM cisplatin caused less alteration of the viability. Vitamin E and selenomethionine treated with 2.5 mM H2O2 were increased in the viability and changed in the antioxidant enzyme activities.

[PC1-6] [10/20/2000 (Fri) 15:30 - 16:30 / [Hall B]]

Inhibitory Effects on Several Human Carcinoma Cell Growth of Leuteinizing Hormone-Releasing Hormne Analogues, Leuprolide Acetate.

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Gonadotropin-releasing hormone (GnRH) has been shown to have an inhibitory effect on the growth of several hormone-dependent human tumors. LHRH binding sites and in vitro antiproliferative effects of LHRH analogues have been reported in human endometrial carcinoma cell. The effects of the LHRH agonist, leuprolide was studied on cell cytotoxicity, cell proliferation and cell death of the human endometrial cancer cell lines SNU-685 which was characterized in primary tumors of Korean patient and other cancer cell lines MCF-7, T24 and FB-13P. Antiproliferative effect on cells were determined by colorimetric methods, MTT and MTS/PMS assay. After 48 hr exposure to leuprolide acetate (1-300 μM), the proliferation of SNU-685 cell was reduced with a maximal decrease of about 20 % at 10 μM. Meanwhile, the proliferation of breast cancer cell line, MCF-7, urinary bladder cancer cell line, T24 or primary skin fibroblast, FB-13P cell was not affected significantly by leuprolide acetate.

[PC1-7] [10/20/2000 (Fri) 15:30 - 16:30 / [Hall B]]

Effect of p70 S6 kinase inhibitor on production of nitric oxide in RAW 264.7 cells

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$p70^{S6K}$ plays an important role in the progression of cells from G_0/G_1 to S phase of the cell cycle by translational up-regulation of a family of mRNA transcripts that encode for components of the protein synthetic machinery. Rapamycin, $p70^{S6K}$ inhibitor, has been demonstrated to inhibit the production of nitric oxide (NO) induced by lipopolysaccharide (LPS) but not to reduce the expression of inducible nitric oxide synthase (iNOS), indicating that LPS-mediated NO production occurs via FKBP12-rapamycin-associated protein-dependent pathway by a mechanism probably involving posttranslational modification of iNOS. However, the relationship between LPS-induced NO production and $p70^{S6K}$ pathway is not completely understood. Here, we investigated the regulatory mechanism of iNOS expression by rapamycin. The activity of $p70^{S6K}$ was increased in RAW 264.7 cells treated with 1μg/ml LPS, and this increase was markedly attenuated by pretreatment of rapamycin. In parallel, rapamycin decreased NO production in LPS-stimulated RAW 264.7 cells. Furthermore, treatment with rapamycin led to a decrease in iNOS protein as well as mRNA expression levels. These results indicate that the inhibition of NO production by rapamycin might be mediated by the expression of iNOS regulated at transcriptional level, not the regulation of NOS activity through a posttranslational modification.

[PC1-8] [10/20/2000 (Fri) 15:30 - 16:30 / [Hall B]]