level of NO in brains. The expression of NOS was not also influenced by MFs exposure.
These results suggest that MFs exposure can affect NO levels in rat brain. Further studies remains to be performed to confirm the definite relevance of MFs and NO system.

Poster Presentations - Field A2. Therapeutics

[PA2-1] [04/20/2001 (Fri) 10:30 - 11:30 / Hall 4]

Neuroprotective effect of KR-31378 in cortical cell culture and in brain ischemia-reperfusion model

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Despite of considerable research efforts for the development of neuroprotective agents to save neurons from the biochemical and metabolic outcomes of ischemic brain injury, most of neuroprotective agents studied so far have shown their lack of clinical efficacy. This failure is probably due to the complex and multifactorial nature of ischemic brain injury. Thus, it is probably necessary to protect damages from two key events, ischemic injury and reperfusion injury.

Inhibition of lipid peroxidation induced by reactive oxygen species and stabilization of membrane have both been proposed as neuroprotective strategies in stoke. In this context, KR-31378, a novel benzopyran derivatives with N-cyanoguanidine group were synthetized as a new therapeutic strategy for neuroprotection. Possessing both anti-oxidant and potassium channel modulating activities without vasorelaxation activity, it has shown to protect cultured rat cortex neurons against oxidative injury induced by FeSO4 and by hypoxia-reperfusion in vitro. Also, Treatment with KR-31378 significantly reduced brain damage in transient ischemia rat model, demonstrated by reduced infarct size, edema and mortality. Furthermore, treatment with KR-31378 starting up to 2h after reperfusion maintained its neuroprotective effect. All these results indicate that KR-31378 represents a potentially useful therapeutic agent for the treatment of ischemic/reperfusion brain injury.

[PA2-2] [04/20/2001 (Fri) 10:30 - 11:30 / Hall 4]

Study on toxicity and in vitro cytotoxicity of ID6105 (Hyrubicin), A new anticancer agent

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New anthracyclines, ID6105 (Hyrubicin) and ID6101 (Aclacinomycin X), were isolated from Streptomyces galilaeus ATCC 3113 containing dnrF.
The in vitro cytotoxicity of ID6105 and ID6101 was tested on murine and human cancer cell lines in comparison with adriamycin and aclacinomycin A by SRB assay. The acute toxicity of these compounds for mouse was also tested.
As a result, the ID6105 was 10~100 times more cytotoxic than adriamycin, and 3 ~10 times than

aclacinomycin A. The most sensitive cell lines were P388 and MCF7. ID6101 was 3 ~ 10 times more cytotoxic than adriamycin, but similar to aclacinomycin A. The acute toxicity of ID6105 for mouse was as severe as adriamycin. In the 4-weeks repeated toxicity test, MTD of ID6105 was 1mg/kg and no apparent histopathological changes were detected.
While in vitro cytotoxicity of ID6105 was higher than adriamycin, the acute toxicity for mouse was similar to that of adriamycin. This advantage made ID6105 as a candidate for new anticancer drug, which is now in preclinical trials.

[PA2-3] [04/20/2001 (Fri) 10:30 - 11:30 / Hall 4]

Study on in vivo antitumor efficacy of ID6105 (Hyrubicin), A new anticacner agent

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A new hybrid anthracycline, ID6105(Hyrubicin) was isolated from Streptomyces galilaeus ATCC 31133/dnrF, and is in preclinical phase as a promising antitumor drug.
As in vitro cytotoxicity of ID6105 was more potent than other anthracycline antitumor agents, doxorubicin(adriamycin) and aclacinomycin A, but the acute toxicity of ID6105 for rats was similar to that of doxorubicin, we studied in vivo antitumor efficacy of this drug against murine and human tumors to confirm its capability as anticancer agent.
B16, Colon26 and LLC in murine solid tumor models were more sensitive to single dose of ID6105(15 ㎎/㎏, 10㎎/㎏, 5㎎/㎏, i.v.) than leukemia cell lines such as P388 and L1210. The most sensitive cell line was LLC among solid tumors. Thereafter we tested the efficacy of ID6105 in repeated-doses with LLC and established a dosing schedule on which ID6105 showed high anticancer activity. On the schedule ID610 had about 30% higher acicvity than adriamycin. In human xenograft models, ID6105 (0.3㎎/㎏, i.p.) showed higher antitumor effect than murine tumor model. PC-3, prostate cancer and SW620, colon cancer, were more sensitive than the others tested (HT29, NCI-H23). Althogh we need more studies of the effect of ID6105 on other human tumors, it is expected to be a new potent anticancer agent.

[PA2-4] [04/20/2001 (Fri) 10:30 - 11:30 / Hall 4]

Urinary Profile of the Endogenous Steroids in Post-Menopausal Women with Stress *Urinary Incontinence*

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To predict the role of estrogen in the prevention and in the therapy of stress urinary incontinence,the urinary levels of estrogens and androgens were compared between the patients with stress urinary incontinence and normal subjects. In order to indirectly evaluate metabolism of estrogens and androgens, the concentration ratios of precursor metabolites were also compared between two groups.
Urine samples collected for 24 hrs were obtained from the post-menopausal, female patients with stress urinary incontinence (n=20) and from age-matched, post-menopausal, normal female subjects (n=14). The urinary levels of 20 estrogens and 21 androgens and corticoids were analyzed by gas chromatography-mass spectrometry.
The urinary level of androgens was significantly higher in patients with stress urinary incontinence than normal subject. The urinary level of estrogens were somewhat higher in patients than normal subjects,