dextromethorphan of apomorphine-induced climbing behavior was reversed by the treatment with SNAP. The suppressive action by L-NAME of apomorphine-induced climbing behavior was also reversed by the treatment with NMDA.
These results have demonstrated that the NO system is located at down-stream of NMDA receptors involved in modulation of apomorphine-induced climbing behavior in mice. Therefore, the enhanced effect of NO donor and the inhibitory effect of NOS inhibitor on apomorphine-induced climbing behavior show experimental evidence which NO interacts with DA, NMDA receptors indicating that NO plays an important role in the glutamatergic modulation of dopaminergic function at the postsynaptic DA receptors.

[PB3-7] [10/18/2001 (Thr) 14:00 - 17:00 / Hall D]

Developmental Alteration in Nociceptive Threshold in Neonatally Capsaicin-treated Rats

Hong YoungMi°, Kim MiJeong, Lee SangHee, Jung JooYoung, Hwang SunWook, Lee SoonYeul, Oh Uhtaek

Sensory Research Group, National Creative Research Initiatives, College of Pharmacy, Seoul National University, San 56-1, Shinlim, Kwanak-Gu, Seoul 151-742, Korea

This study examined the effect of neonatal administration of capsaicin on nociceptive thereshold. Neonatal administration of capsaicin destroys a subpopulation of small diameter primary afferent neurons. So to find the evidence, we observed the age-dependent threshold alterations according to thermal, mechanical and chemical stimuli. Neonatal administration of capsaicin increased plantar latency (PL) in age-dependent manner between 3 week and 6 week of age. But that in 10 day or 2-week-old rats were higher than 3-week-old rats. Age-dependent alterations in tail flick latency (TFL) also occurred in capsaicin-treated rats. But, PL and TFL in capsaicin-treated rats after 2 weeks was not different form vehicle-treated values. The paw withdrawal threshold of capsaicin-treated rats was significantly different from that of vehicle-treated rats except for 3-week old rats. Although ophthalmic instillation of capsaicin in capsaicin-treated rats also evoked a wiping response, the number of wipes was significantly less than in the corresponding vehicle-treated rats at each age examined. The thermal difference of capsaicin treated rats and vehicle treated rats about hyperalgesia produced at 4hr after i.pl. carrageenan (CAR) examined by using the plantar test. The plantar latency was significantly greater after 4 weeks. As examined in thermal response about CAR-induced hyperalgesia, the mechanical difference was founded.

[PB3-8] [10/18/2001 (Thr) 14:00 - 17:00 / Hall D]

Hwangryun-Hae-Dok-tang (Huanglian-Jie-Du-Tang) extract and its constituents reduce ischemia-reperfusion brain injury via neutrophil infiltration in rats

Hwang Young sun°, Kim Min Sun, Yook Chang Soo, Lee Jea Hyun, Ryu Jong Hoon

College of Pharmacy, Kyung Hee University

The preventive effect of Hwangryun-Hae-Dok-tang (HHDT, Huanglian-Jie-Du-Tang), a Chinese herbal medicine, and its ingredients on the ischemia/ reperfusion-induced brain injury was evaluated in the rat brain. Ischemia was induced by intraluminal occlusion of the right middle cerebral artery for 120 min and reperfusion was continued for 22 h. HHDT (200 mg/kg), Coptidis rhizoma (100 mg/kg), Scutellariae radix (100 mg/kg), Phellodendri cortex (100 mg/kg), and Gardeniae fructus (100 mg/kg) were orally administered twice, promptly prior to reperfusion and 2 h after the reperfusion. Baicalein, a component of Scutellariae radix, was also examined at a dosage of 50 mg/kg twice. Total infarction volume in the ipsilateral hemisphere of ischemia/ reperfusion rats was significantly lowered by the treatments of HHDT,