[PA1-17] [10/18/2001 (Thr) 14:00 - 17:00 / Hall D]

The Oral Efficacy of DA-8159, a New Phosphodiesterase 5 Inhibitor, for Inducing Penile Erection in Concious Rabbits

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DA-8159 is a pyrazolopyrimidinone derivative showing potent and selective phosphodiesterase 5 inhibition. DA-8159 induced a dose-dependent increase in intracavernous pressure (ICP) in the anesthetized dog. The aim of this study was to investigate the oral efficacy of DA-8159 in a conscious rabbit model. DA-8159 and sildenafil citrate (0.3 to 10 mg/kg) was given orally or intravenously to awake male rabbits in the absence or presence of intravenous sodium nitroprusside, a nitric oxide donor. Erection was evaluated in a time-course manner by measuring the length of the uncovered penile mucosa. In results, both DA-8159 and sildenafil citrate induced a dose-dependent erection in conscious rabbits. The effective dose level and the duration of DA-8159 induced erection were comparable to those of sildenafil citrate. However, the onset time of erectile activity was slightly but significantly faster in DA-8159 treated animals than in the sildenafil citrate-treated rabbits. The oral efficacy of both drugs was potentiated and the effective doses were significantly decreased by intravenous sodium nitroprusside. Potentiation of the effect by a nitric oxide donor implies that DA-8159 would have enhanced activity during sexual arousal. These results clearly demonstrate that DA-8159 may be useful for treatment of erectile dysfunction.

[PA1-18] [10/18/2001 (Thr) 14:00 - 17:00 / Hall D]

Renal Action of Raclopride, a Dopamine D2 Receptor Antagonist, in Dog

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This study was attempted to investigate the effect of raclopride, a dopamine D2 receptor antagonist, on renal function in dog. Raclopride(70~220 ㎍/㎏), when given intravenously, produced antidiuresis along with the decrease in free water clearance(CH2O), urinary excretion of sodium and potassium(ENa, EK), partially decreased osmolar clearance(Cosm) and increased reabsorption rates of sodium and potassium in renal tubules(RNa, RK). Raclopride administered into a renal artery did not influence on renal function in small doses(10 and 30 ㎍/㎏), whereas exhibited the decrease of urine volume(Vol) and CH2O both in experimental and control kidney in much dose (100 ㎍/㎏), at this time, the decreased rates of both Vol. and CH2O were more prominent in control kidney rather than that elicited in experimental kidney, and then only ENa was decreased in control kidney, but increased in experimental kidney. Raclopride administered via carotid artery(30~200 ㎍/㎏) did not influence at all on renal function. Antidiuretic action induced by raclopride given intravenously was not affected by renal denervation. Raclopride given into carotid artery was little effect on renal function without relation to renal denervation. Above results suggest that raclopride produces antidiuresis by potentiation of antidiuretic hormone(ADH) action in blood without increase of ADH secretion in posterior pituitary gland, it is not related to renal nerve function in dogs.

[PA1-19] [10/18/2001 (Thr) 14:00 - 17:00 / Hall D]

Studies on Safety Pharmacology of DA-8159, a New Erectile Dysfunction Treatment

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