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**Antihypertensive and Diuretic Effects of YM-09730-5,  
a new Calcium Antagonist, in Stroke-Prone  
Spontaneously Hypertensive Rats\***

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1. Effects of consecutive administration of YM-09730-5, (3S)-1-benzyl-3-pyrrolidinyl-methyl (4S)-2,6-dimethyl-4-(*m*-nitrophenyl)-1,4-dihydropyridine-3,5-dicarboxylate hydrochloride, a new calcium antagonist, for 9 wk on blood pressure and urinary excretion of electrolytes were studied in stroke-prone spontaneously hypertensive (SHRSP) rats.
2. YM-09730-5 (1 and 3 mg/kg per day, p.o.) prevented development of hypertension and produced a significant reduction in blood pressure from the first week of the experiment. Nicardipine (15 mg/kg per day, p.o.) produced almost the same degree of antihypertensive effect as YM-09730-5 at a dose of 3 mg/kg.
3. YM-09730-5 produced significant diuresis and increased urinary excretion of electrolytes throughout the experiment.
4. Chronic administration of YM-09730-5 (3 mg/kg) reduced the severity of glomerular lesions in the kidney and vasculitis in the mesenteric artery.
5. These results demonstrate that YM-09730-5 is a potential antihypertensive drug with a potency about 5 times higher than that of nicardipine.

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\*\* 山之内製薬