

Title	Chronic effects of enalapril on blood pressure, stroke, plasma renin, urinary electrolytes and PGE ₂ excretion in stroke-prone spontaneously hypertensive rats
Sub Title	
Author	渡辺, 卓司(Watanabe, Takushi) 川島, 紘一郎(Kawashima, Koichiro) 曾我部, 博文(Sokabe, Hirofumi)
Publisher	共立薬科大学
Publication year	1985
Jtitle	共立薬科大学研究年報 (The annual report of the Kyoritsu College of Pharmacy). No.30 (1985.) ,p.97- 97
JaLC DOI	
Abstract	
Notes	抄録
Genre	Technical Report
URL	https://koara.lib.keio.ac.jp/xoonips/modules/xoonips/detail.php?koara_id=AN00062898-00000030-0097

慶應義塾大学学術情報リポジトリ(KOARA)に掲載されているコンテンツの著作権は、それぞれの著作者、学会または出版社/発行者に帰属し、その権利は著作権法によって保護されています。引用にあたっては、著作権法を遵守してご利用ください。

The copyrights of content available on the KeiO Associated Repository of Academic resources (KOARA) belong to the respective authors, academic societies, or publishers/issuers, and these rights are protected by the Japanese Copyright Act. When quoting the content, please follow the Japanese copyright act.

Chronic Effects of Enalapril on Blood Pressure, Stroke, Plasma Renin, Urinary Electrolytes and PGE₂ Excretion in Stroke-Prone Spontaneously Hypertensive Rats

Takushi X. WATANABE*, Koichiro KAWASHIMA and Hirofumi SOKABE*

渡辺卓司*, 川島紘一郎, 曾我部博文*

Antihypertensive effect of enalapril (MK-421), an orally active nonsulphydryl-containing converting enzyme inhibitor, was examined in stroke-prone spontaneously hypertensive (SHRSP) rats. The treatment was started at 14–15 weeks of age with tail blood pressure over 240 mmHg and was continued for 11 weeks. We used captopril as the reference drug. The dose of enalapril and captopril was 10 and 30 mg/kg per day, p. o., respectively. Enalapril showed a sustained antihypertensive effect from the 1st to the 11th week of the treatment. This antihypertensive effect was substantiated by the good increase in body weight ; decrease in heart weight ; decrease in incidences of vascular disease, nephrosclerosis, stroke and death. Enalapril treatment also prevented the increases in urine volume, and excretion of osmotically active solutes, Na, Cl and K with age. Captopril treatment showed about the same antihypertensive effect. No side effects were seen in the enalapril or captopril treated group. The antihypertensive potency of enalapril was about 3 times more than that of captopril. Enalapril and captopril slightly increased plasma renin concentration. Urinary excretion of PGE₂ was not changed by enalapril or captopril treatment. These results clearly demonstrate the efficacy of long-term treatment with enalapril to prevent development of malignant hypertensive cardiovascular disease in SHRSP rats.

本報告は *Japan. J. Pharmacol.* 38, 419–427 (1985) に発表

* 自治医大・薬理