

# **The antihypertensive effect of the berberine derivative**

## **6-protoberberine in spontaneously hypertensive rats.**

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摘要

### **Abstract**

Berberine is a natural isoquinoline alkaloid found in plants of the Ranunculaceae and Berberidaceae families. Extracts from berberine-containing plants have been used as traditional Chinese folk remedies for centuries. The antihypertensive effects of the berberine derivative 6-protoberberine (PTB-6) were studied in spontaneously hypertensive rats (SHRs). In conscious SHRs, PTB-6 lowered the systolic blood pressure in a dose-dependent manner (6-PTB: 5 mg/kg,  $-31.1 \pm 1.6$  mm Hg; 10 mg/kg,  $-42.4 \pm 3.1$  mm Hg). Cardiac output using the thermodilution method was reduced in PTB-6-treated anesthetized SHRs with a tendency to decrease in heart rate. Injection of PTB-6 into the intracerebral ventricles of SHRs lowered the systolic arterial blood pressure and heart rate. The berberine derivative PTB-6 is an effective antihypertensive agent. The mechanism of the antihypertensive effect of PTB-6 is probably through a central sympatholytic effect.s