

Calcium influx inhibition: possible mechanism of the negative effect of tetrahydropalmatine on left ventricular pressure in isolated rat heart.

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摘要

Abstract

The active ingredient dl-tetrahydropalmatine (THP) isolated from the traditional Chinese herb *Corydalis racemosa* has been found to have antihypertensive effects. However, severe cardiac and neurological toxic effects were reported from using this herb for the treatment of pain. In an isolated perfused rat heart model, THP at the concentration of 100 microM was found to have a negative effect (-45%) on left ventricular pressure and this effect was produced concentration-dependently from concentrations lower than 50 microM. In isolated cardiomyocytes, radioactive calcium influx was also inhibited significantly by THP at the concentration of 100 microM and this effect was also in a concentration-dependent manner (-39%). In a patient with latent heart disease, the use of *Corydalis* should probably be detrimental, the toxic effect was probably due to calcium influx inhibition.