

摘出犬冠動脈に及ぼす抗高血圧薬 Nipradilol の作用

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Effects of an Antihypertensive Agent, Nipradilol, on Isolated Coronary Artery of the Dog

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ABSTRACT Effects of nipradilol on proximal, middle and distal portions of left coronary arteries of the dog were investigated in vitro. Nipradilol (10^{-7} – $10^{-3}M$) produced a concentration-dependent relaxation in helical strips of isolated coronary artery under potassium contracture. The relaxation in the middle portions was most pronounced, it was 10% of the equimolar concentrations of nitroglycerin and significantly greater than that of propranolol. In the proximal portions of the coronary arteries, nipradilol (3×10^{-8} – $3 \times 10^{-7}M$) showed a tendency to augment the contractile responses to norepinephrine; in the middle portions it reversed the relaxant responses to norepinephrine into contractile effects in a concentration-dependent manner. In distal portions, nipradilol significantly decreased the relaxant responses of the strips to norepinephrine. The findings demonstrate direct vasodilating and β -adrenoceptor blocking actions of nipradilol in isolated coronary arteries of the dog.

抄録 摘出犬冠動脈条片の K^+ 拘縮に対してNipradilolは用量依存的弛緩を示した。この標本のノルアドレナリンによる弛緩作用に対してNipradilolは抑制,あるいは逆の収縮作用へと転換させた。このことはNipradilolが冠動脈に対して直接的な弛緩作用と β -遮断作用を持っていることを明確にした。

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