

摘出犬冠動脈における新しい $\beta$ -アドレナリン受容体遮断薬 Arotinolol (S-596) の $\alpha$ -アドレナリン受容体遮断作用の可能性

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**Possible  $\alpha$ -Adrenoceptor Blocking Activity of Arotinolol (S-596), a New  $\beta$ -Adrenoceptor Blocking Agent in Isolated Dog Coronary Artery**

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**ABSTRACT** Effects of arotinolol on dog coronary arteries were investigated in vitro. In distal portions of left circumflex coronary arteries contracted with  $3 \times 10^{-2} M$  KCl, norepinephrine relaxed the strips in a concentration-dependent fashion. Propranolol ( $10^{-6} M$ ) converted the norepinephrine-induced relaxations to contractions, and arotinolol ( $10^{-6}$ – $10^{-5} M$ ) inhibited the relaxations induced by norepinephrine in a concentration-dependent manner. In proximal portions of the strips after potassium-contraction, norepinephrine produced concentration-dependent contractions which were augmented by propranolol ( $10^{-6} M$ ) and inhibited by arotinolol ( $10^{-6}$ – $10^{-5} M$ ). These results suggest that arotinolol has an  $\alpha$ -adrenoceptor blocking activity in addition to a  $\beta$ -adrenoceptor blocking action in dog coronary arteries.

抄録 摘出犬冠動脈条片のノルアドレナリンによる収縮作用はプロプラノロールでは増大したが、Arotinolol では抑制された。これは $\beta$ -遮断薬として開発されたArotinololが $\alpha$ -遮断作用をも有している可能性を示唆した。

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