

## عنوان مقاله:

The vasodilatory action of telmisartan on isolated mesenteric artery rings from rats

## محل انتشار:

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## خلاصه مقاله:

Objective(s): Angiotensin type 1 receptor blockers (ARBs) represent one of the widely used antihypertensive agents. In addition to anti-hypertension effect, some ARBs also show other molecular effects such as activating peroxisome proliferator-activated receptor- $\gamma$  and so on. Here we studied the effects of telmisartan on the rat isolated mesenteric artery rings pre-contracted by phenylephrine (PE). Materials and Methods: Rat mesenteric artery rings were pre-contracted with  $10 \mu\text{M}$  PE, and cumulative concentration-response curves to telmisartan were obtained. The endothelium-dependent mechanisms were investigated by mechanical removal of the endothelium.  $\text{K}^+$  channels were investigated by pretreatment of the artery rings with various  $\text{K}^+$  channel blockers. Results: Telmisartan produced concentration-dependent relaxation of the artery rings pre-contracted by  $10 \mu\text{M}$  PE. Denudation of the endothelium did not affect the relaxant effect of telmisartan. Pretreatment with  $\text{BaCl}_2$  nearly inhibited the relaxation induced by the  $0.5$ ,  $1$ ,  $5$  and  $10 \mu\text{M}$  telmisartan, but did not affect the relaxation induced by the  $50$  and  $100 \mu\text{M}$  telmisartan. While the relaxation induced by telmisartan was not affected by pretreatment with TEA, 4-AP and glibenclamide. Conclusion: These findings demonstrated that telmisartan produces concentration dependent vasodilation in isolated rat mesenteric artery rings with or without endothelium pre-contracted by PE.  $\text{KIR}$  channel may be involved in such a relaxant effect of telmisartan.

## کلمات کلیدی:

ARB, Potassium channel, Mesenteric arteries, Rat, Telmisartan, Vasodilation

## لینک ثابت مقاله در پایگاه سیویلیکا:

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