

[gw22-e0947]

**THE EFFECT OF ANTIHYPERTENSIVE ON THE
EXPRESSION OF TRPC3 AND TRPC6 IN THE AORTA
IN SPONTANEOUSLY HYPERTENSIVE RATS**

Liao Xueyan, Chen Ming, Yu Dongmei *Department of Cardiology of The first Affiliated Hospital, Chongqing Medical University, Chongqing, China*

10.1136/heartjnl-2011-300867.14

Objective To investigate whether ramipril, valsartan and amlodipine play a role in expression of transient receptor potential canonical 3 and 6 channel (TRPC3, TRPC6) at the aorta in spontaneously hypertensive rats (SHR).

Methods SHRs were randomly divided into four groups: ramipril group (n=6), valsartan group (n=6), amlodipine group (n=6) and no drug group (n=6). Wistar-Kyoto (WKY) rats were used as control group (n=6). After treated for 4 weeks, the rats were examined for blood pressure, the mRNA expression of TRPC3 and TRPC6 were determined by RT-PCR and the protein level of TRPC3 and TRPC6 by immunohistochemistry and Western Blot.

Results TRPC3 and TRPC6 increased in aorta from SHR compared with normotensive WKY rats ($p<0.05$). In drug groups, the systemic blood pressure and the mRNA and protein expression of TRPC3 decreased ($p<0.05$), but the expression of TRPC6 had no change.

Conclusion In SHR rats, increased expressions of TRPC3, TRPC6 channels mRNA and protein in the vasculature may play a role in elevated blood pressure. Ramipril, valsartan and amlodipine possibly reduced blood pressure partly by inhibition of TRPC3 expression.