

Angiotensin-(1-9) reverses experimental hypertension and cardiovascular damage by inhibition of the angiotensin converting enzyme/Ang II axis

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BACKGROUND:: Little is known about the biological effects of angiotensin-(1-9), but available evidence shows that angiotensin-(1-9) has beneficial effects in preventing/ameliorating cardiovascular remodeling. **OBJECTIVE::** In this study, we evaluated whether angiotensin-(1-9) decreases hypertension and reverses experimental cardiovascular damage in the rat. **METHODS AND RESULTS::** Angiotensin-(1-9) (600 ng/kg per min for 2 weeks) reduced already-established hypertension in rats with early high blood pressure induced by angiotensin II infusion or renal artery clipping. Angiotensin-(1-9) also improved cardiac (assessed by echocardiography) and endothelial function in small-diameter mesenteric arteries, cardiac and aortic wall hypertrophy, fibrosis, oxidative

stress, collagen and transforming growth factor type β - 1 protein expression (assessed by western blot). The beneficial effect of angiotensin-(1-9) was blunted by coadministration of the angiotensin type 2(AT2) receptor blocker PD123319