

عنوان مقاله:

Cardiovascular effects of standardized hydroalcoholic extract of Ribes khorasanicum fruit in acute hypertensive rats

محل انتشار:

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خلاصه مقاله:

Objective: Ribes khorasanicum (R. khorasanicum) traditionally has been used for the treatment of higher blood pressure. In this study, the effect of hydroalcoholic extract of R. khorasanicum fruit in normotensive and hypertensive rats was evaluated. **Materials and Methods:** Animals were assigned into the following groups: 1) Control, 2) AngII (50 ng/kg), 3) AngII + losartan (Los, 10 mg/kg) and 4-6) Doses 4, 12 and 24 mg/kg of extract + AngII groups. AngII and Los were injected intravenously and the extract was injected intraperitoneal. In R. khorasanicum groups, AngII injected 30 after injection of the extract. The femoral artery was cannulated and mean arterial pressure (MAP), systolic blood pressure (SBP), and heart rate (HR) were recorded by Power Lab software. Maximal changes (Δ) of cardiovascular responses were determined and compared with those of control and AngII groups. Finally, oxidative stress parameters in the heart and aorta were also determined. **Results:** In normotensive rats, 12 mg/kg of the extract showed significant hypotensive effects while 24 mg/kg produced significant tachycardia. Increased Δ SBP and Δ MAP in AngII group were significantly blunted by Los. Doses 4 and 12 mg/kg of the plant also significantly attenuate the effect of AngII on Δ SBP and Δ MAP. Tachycardia induced by 24 mg/kg of the extract didn't affect by AngII. Extract also significantly improved the effect of AngII on MDA, total thiol content, CAT and SOD in both heart and aorta tissues. **Conclusion:** R. khorasanicum at lower doses showed hypotensive effects and attenuated cardiovascular parameters in hypertensive rats via its antioxidant effects.

کلمات کلیدی:

Ribes khorasanicum, Angiotensin II, blood pressure, Heart rate, Hypertension

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