

RENAL RESISTIVE INDEX IN PREHYPERTENSIVE PATIENTS

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Objective: Renal resistive index (RRI) in renal doppler ultrasonography is accepted to be a good indicator of renal vascular resistance caused by atherosclerosis. It is also associated with target organ damage and cardiovascular or renal outcomes in patients with hypertension as well as diabetes mellitus. The frequency of patients with prehypertension is higher than patients with hypertension. The aim of this study was to investigate the association between RRI and prehypertension. Material and methods: A total of 65 subjects were included in this cross-sectional cohort study. The study group consisted of 33 prehypertensive patients and the control group consisted of 32 healthy subjects. Systolic and diastolic blood pressures, RRI were measured. Systolic and diastolic blood pressures between 120-139 mmHg and 80-89 mmHg were defined as prehypertension. Medcalc 17V (Belgium) software program was used for statistical analyses. Results: The groups were matched in terms of age and sex (47.8±9.5 vs. 50.8±10.4, p=0.231; female/male= 27/6 vs. 25/7, p=0.711). Systolic and diastolic blood pressures were 130.3±7.5 and 83.5±6.5, respectively in the study group while they were 111.8±10.1, 69.5±10.1, respectively in the control group. The differences were statistically significant (p0.001, respectively). The RRI level of patients with prehypertension was higher than healthy subjects (0.61±0.04 vs. 0.58±0.05, p=0.039). Conclusion: Prehypertensive patients had higher RRI in the current study. High RRI may be a marker for cardiovascular and renal diseases in patients with prehypertension.