

## **COMPARISON OF PRO B-NATRIURETIC PEPTIDE IN HYPERTENSIVE PATIENTS WITH AND WITHOUT DIASTOLIC DYSFUNCTION**

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**OBJECTIVE.** Hypertensive patients may present with normal or abnormal diastolic function. The distinction between the two conditions is important because diastolic dysfunction may be associated with worse long-term survival. This study was performed to examine the relationship between plasma concentrations of the N-terminal B-natriuretic peptide (NT-proBNP) in hypertensive patients with diastolic dysfunction.

**DESIGN AND METHODS.** Thirty-nine hypertensive patients with normal systolic function, consecutively referred for echocardiography examination between October to December 2004, were recruited in the study. Diastolic dysfunction was diagnosed if echocardiographic mitral flow pattern demonstrated impaired relaxation, pseudonormalization or restrictive patterns. NT-pro BNP levels were assessed using electrochemiluminescence immunoassay (ECLIA) method. ANOVA and unpaired t test were used to analyze the results.

**RESULTS.** Twelve out of 39 subjects had normal diastolic function. All baseline characteristics, except for uric acid, were equally distributed between normal and abnormal diastolic function groups. NT-pro BNP levels were not significantly higher in the diastolic dysfunction group ( $p=0.053$ ). Multivariate analysis showed that NT-pro BNP levels were associated with serum creatinine level ( $p=0.05$ ) and gender ( $p=0.015$ ).

**CONCLUSIONS.** NT-pro BNP levels tend to be higher in hypertensive subjects with diastolic dysfunction.

**Keywords:** Hypertension; pro B-Natriuretic peptide; Diastolic dysfunction.