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**ASSOCIATIONS BETWEEN PLASMA NT-PROBNP AND THE NUMBER OF ECHOCARDIOGRAPHIC ABNORMALITIES IN GERIATRIC INPATIENTS**

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**Objective** There are multiple echocardiographic abnormalities in the geriatric population, whether the number of abnormalities could possibly affect NT-proBNP levels. The aim of this study was to assess the association between the number of echocardiographic abnormalities and NT-proBNP levels in geriatric inpatients.

**Method** A total of 148 subjects aged 60 years or over were recruited. Plasma N-terminal proBNP was measured by ELISA. Echocardiography measured left atrial diameter, left ventricular diameter, valvular lesions, ventricular wall motion, systolic or diastolic function and atrial fibrillation and so on. Inpatients were stratified group no abnormality, one abnormality, two abnormalities, more than three abnormalities. Analysing the associations between NT-proBNP plasma levels and echocardiographic abnormalities or the number of it.

**Result** NT-proBNP levels increased with an increasing number of echocardiographic abnormalities ( $p=0.04$ ) and correlated with the numbers ( $r=0.201$ ,  $p=0.015$ ). Left atrial enlargement ( $r=0.251$ ,  $p=0.002$ ), valve diseases ( $r=0.242$ ,  $p=0.003$ ) and atrial fibrillation ( $r=0.260$ ,  $p=0.001$ ) were positively correlated with NT-proBNP, and left ventricular ejection fraction ( $r=-0.191$ ,  $p=0.020$ ) was negatively correlated with it.

**Conclusion** NT-proBNP plasma levels increased with an increasing number of echocardiographic abnormalities in geriatric inpatients. NT-proBNP plasma levels were correlated with atrial fibrillation, left atrial enlargement, valve disease and left ventricular ejection fraction.