

## **EFFECT OF THE EXISTENCE AND SIZE OF INFARCTION AREA ON THE PLASMA B-TYPE NATRIURETIC PEPTIDE LEVELS IN ISCHEMIC STROKE**

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**Aim:** The aim was to determine the effect of the existence and size of infarction on the plasma B-type Natriuretic Peptide (BNP) levels in a group of ischemic stroke patients.

**Methods:** Sequential patients showing stroke symptomatology, not having a series of exclusion criteria, and admitting to Istanbul Goztepe Training and Research Hospital Clinic Emergency Unit were included into the study. Fifty nine patients were included in the final analysis. The patients were categorized according their diffusion MR findings. In regarding to the existence and size of the infarction we created 4 groups. SPSS was used for the analysis of the data. Means and frequencies were calculated as usual. The differences among means were tested by nonparametric statistics.

**Findings:** Thirty point five of the participants were men. Mean age and BNP levels of the participants were 67.8 (16.7) year and 146.5 (156.4) pg/ml. In regarding to the existence and size of the infarction, Group 1 (no infarct) consisted of 20 (33.9%); Group 2 (small infarct), 16 (27.1%); Group 3 (midsize infarct), 10 (16.9%); and Group 4 (big size infarct), 10 (22.0%) participants. The level of BNP changed according to the groups; the mean level of BNP in Group 1 was 22.6 (1.5); Group 2, 90.2 (6.2); Group 3, 171.3 (27.3); and Group 4 387.3 (37.8) pg/ml (overall  $p < 0.001$ ). Post hoc analyses showed statistical differences among each group.

**Conclusion:** Plasma BNP may be helpful for the prediction of the existence and size of the infarct in acute ischemic stroke.