Evaluation of the association between antihypertensive treatment and development of stroke

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Ischemic stroke is an event that occurs due to cerebral vascular morbidity and is directly related to the degree of vascular damage. This process is associated with atherosclerotic progression and is influenced by the presence of cardiovascular risk factors especially hypertension. In a retrospective study of patients who were hospitalized between 2003-2008 due to CVA or TIA, 916 cases of stroke patients were reviewed. In these, comorbidities including cardiovascular risk factors (hypertension, diabetes, dyslipidemia, renal failure, coronary artery disease) were examined. One of the goals of our research was to examine whether specific medications used for hypertension are associated with the development of strokes. In the study, the commonest stroke type was ischemic (70.2%), one – quarter of the patients (24.6%) were diagnosed as suffering of TIA, as expected, the lowest number of patients were patients with hemorrhagic stroke – 5.2%. The study demonstrated that there is no correlation between blood pressure levels that were measured in the ER and the type of stroke. Also, there was no correlation between blood pressure levels measured in the ER to the appearance of a recurring stroke. According to the data, there was no association among the six groups of drugs that treat hypertension for the prevention of a recurring event of stroke. However the drug combination of Diuretics and ACEI and CCB with ACEI were preferred among all other drug combinations. It is difficult to conclude about association of stroke to specific antihypertensive groups of medication in a retrospective study. In order to answer this question a wide range prospective study should be performed.