

Studying Relative Frequencies of Renal Artery Stenosis in Patients with Severe Hypertension Gone under Angiogram Procedure in Imam Khomeini Hospital (Ardabil-2014) And It's Relationship with the Findings from Coronary Angiogram

ABSTRACT

Background and Objective : The study deals with review of the relationship between frequencies of renal artery stenosis in patients with severe hypertension, upon whom angiogram have been performed in Imam Khomeini Hospital (Ardebil-2014); and, its relationship with the findings from coronary angiograms. The reasons leading to selection of the research subject could be cited as: high prevalence of coronary artery stenosis due to atherosclerosis, the fact that the disease occurs more in people with chronic high blood pressure, and also the point that renal artery stenosis is one of the main causes of hypertension, especially in old people.

Methods: This descriptive-analytical research has been performed in 2014, on 250 patients with systolic blood pressure of higher than 160mmHg, gone under coronary and renal artery angiogram procedures, simultaneously. A form has been filled out including personal information for each patient (age, gender, and hypertension record), using their hospital files. Patients' information have been collected in check lists containing file number, age, gender, record of high blood pressure, severity of renal artery stenosis, number of renal arteries diagnosed with stenosis, and number of coronary arteries diagnosed with stenosis. Information included in patients' questionnaires has been entered into SPSSV16, to be analyzed.

Result: 250 patients on whom coronary and renal arteries angiogram have been performed (systolic blood pressure higher than 160mmHg) have been studied, in the research. Average age of patients suffering from renal artery stenosis and those with no stenosis in renal artery has been 66.3 ± 7.9 and 62.2 ± 11.7 years, respectively. From among them, 108 patients (43.2%) have had record of diabetes, 154 individuals (61.6%) have had hyperlipidemia, and 53 persons (21.2%) have been smokers. The results showed that there is a significant relationship between average age and gender of those people under study, and renal artery stenosis. Also, there has been a significant relationship between RCA and LAD stenosis, and renal artery stenosis. However, no significant relationship has been found in terms of other parameters such as smoking record, hyperlipidemia, diabetes, and LCX stenosis and renal artery stenosis.

Conclusion: The results indicate that, in angiogram of those patients with RCA and LAD stenosis, simultaneous consideration of renal artery stenosis is a must. Also, in people with higher age diagnosed with coronary arteries disease, simultaneous outbreak of renal artery stenosis is a higher probability. Therefore, patients with hypertension being a candidate for coronary angiogram have to go under renal arteries angiogram procedure, as well. Therefore, patients with high blood pressure who are candidates for coronary artery angiography should also be placed under the angiography of the renal arteries.