

# Relationship between coronary risk factors and the number of involved vessels in coronary angiography

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## ABSTRACT

**Introduction:** Diabetes mellitus, hypertension, hyperlipidemia and cigarette smoking are major coronary artery disease risk factors. This study was performed to detect the correlation between major coronary risk factors and the number of diseased vessels in coronary angiography.

**Methods:** This descriptive study was performed on 196 patients with coronary artery disease who underwent coronary angiography in Shafa hospital of Kerman during a six-month period. Data were collected by a questionnaire that was used to record coronary risk factors and number of involved vessels in angiography. Narrowing of more than 50% of the vessel was considered remarkable stenosis. T-test Chi-Square, Man-Whitney and Kruscal-Wallis tests were used for data analysis.

**Results:** The sample included 142 (72%) males, 54 (28%) females, and the mean age was 55.1% years. Single, two and three vessel involvement was detected in 42.3% and 23% 42.3% of the patients, respectively. Patients with one vessel disease had diabetes mellitus and hypertension in comparison with those who had two or three vessel involvement ( $P < 0.05$ ). There was no significant relation between hyperlipidemia and cigarette smoking with the number of involved vessel. In the diabetic patients, the likelihood of two or three vessel involvement was higher than that in non-diabetics (odds ratio = 2).

**Conclusion:** In our study, hypertension and diabetes mellitus were the main risk factors for the presence of three vessel disease. Diabetic patients were at high risk with respect to the number of vessel involvement because of accelerated atherosclerosis process in diabetes.

**Key words:** Coronary Disease – Risk Factors – Angiography

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