Prevalence and Effective Factors in Slow Flow and No Reflow in Primary PCI Patients at Imam Khomeini Hospital Cardiac Center in 2016-17

Abstract

Background and Objectives: The phenomenon of no reflow is a phenomenon that after angioplasty and the successful insertion of the stent, the blood flow rate is reduced again in the coronary arteries and there is no mechanical obstruction. In 2% of patients requiring coronary artery interventions, the slow flow phenomenon is an angiogram that is associated with delayed progression of contrast media during coronary artery during angiography in the absence of coronary stenosis .The aim of this study is to investigate the prevalence and factors affecting these phenomenons in Primary PCI patients.

Methods: This cross-sectional study was performed. The statistical population of the patients is 340 people who were under the Primary PCI in 2016-17 years. After the patients 'data, information was collected through a questionnaire and patients' records.

Results: 240 patients (70.6%) were men. The mean age in the study population was 60.77±12.10 years. 134 patients (39.4%) had a positive history of high blood pressure, 68 patients (20%) had positive history of diabetes mellitus and 110 patients (32.4%) had positive history of hyperlipidemia. 48 patients entered the PCI process more than 90 minutes after admission to hospital. The highest frequency is related to anterior MI and LAD was the most frequency based on type of vessel involvement, 12 of them died and 17.1% of patients had no reflow and 12.9% of patients had slow flow. The mean diameter of stents in patients was 2.98 and the mean balloon diameter in patients was 2.01 and there is a significant relation between stent diameter and balloon diameter with slow flow and no reflow ($p < 0.05$).

Conclusion: The results of this study showed that the prevalence of slow flow and no reflow after primary PCI in patients with heart attacks were at a high level with 12.9% for slow flow and 17.1% for no reflow.

Keywords: Slow flow, initial angioplasty, No Reflow