

Investigating of the relationship between blood type and Rh with obstructive and non obstructive coronary disease

Abstract

Background and objective: Considering the high prevalence and the mortality and morbidity of CVD and the various the importance of etiologic studies, and there are some reports of blood group and Rh in the incidence of diseases including CVD, to investigate the relationship between blood groups and Rh obstructive and nonobstructive coronary disease and other risk factors, this study was conducted in patients hospitalized in Imam Khomeini

Methods: This case-control study was performed in Imam Khomeini Hospital, Ardabil, Iran, from December 2018 to August 2019. The target population included the case and control groups. Inclusion criteria in the case group included patients with coronary artery obstruction diagnosed by angiography more than 50% and the control group included patients with normal angiography, all age groups were of both sexes. All patient information through checklists including blood group variables, Rh, age, sex, fasting blood sugar, cholesterol, triglycerides, LDL, HDL, blood pressure and location Residence was recorded. Finally, all the data from the checklists were entered into SPSS 23 program and analyzed.

Results: In this study, 462 patients undergoing coronary angiography were studied. 231 patients with coronary artery occlusion in the case group and 231 patients without coronary artery occlusion in the control group. There was a significant relationship between blood groups and coronary artery disease in the case and control groups, but there was no significant relationship between Rh and coronary artery disease in the case and control groups. In both case and control groups, there was a significant relationship between blood and Rh groups with hyperlipidemia and also in the control group between Rh and diabetes. But no significant relationship was found between blood and Rh groups with hypertension and diabetes in case and control groups

Conclusion: There was a significant relationship between the blood groups and the incidence of coronary artery disease. blood group O had a protective role against coronary artery disease, but blood group AB had a significant risk factor for coronary artery disease. No association was found between Rh and obstructive and non-obstructive coronary artery disease

Keywords: Blood Group, Rh, Coronary Artery Disease