Contribution of diet and major depression to incidence of acute myocardial infarction (AMI).

Abstract

Background. Despite significant improvements in the treatment of coronary heart disease (CHD), it is still a major cause of mortality and morbidity among the Iranian population. Epidemiological studies have documented that risk factors including smoking and the biochemical profile are responsible for the development of acute myocardial infarction (AMI). Psychological factors have been discussed as potential risk factors for coronary heart disease. Among emotional factors, depression correlates with coronary heart disease, particularly myocardial infarction. Methods. This case-control study was conducted on 120 cases (69 males and 51 females) of acute myocardial infarction (AMI) and 120 controls, with a mean age of 62.48 ± 15.39 years. Cases and controls were matched by age, residence and sex. Results. The results revealed that severe depression was independently associated with the risk of AMI (P = 0.025, OR = 2.6, 95% CI 1.1-5.8). The analysis of variables indicated that risk factors for developing depression were unmarried, low levels of polyunsaturated fatty acids (PUFAs), total dietary fiber (TDF) and carbohydrates. The levels of these dietary factors were lowest in severely depressed patients compared to those categorised as moderate or mild cases. Furthermore, severely depressed subjects were associated with higher levels of total cholesterol, high systolic blood pressure (SBP) and WHR. Age, income, a family history of coronary heart disease, education level, sex, employment and smoking were not associated with severe depression. Conclusion. The present study demonstrated that severe depression symptoms are independent risk factors for AMI. Furthermore, severe depression was associated with an unhealthy diet and AMI risk factors.