

Dehydroepiandrosterone sulfate as a risk factor for premature myocardial infarction: a comparative study.

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Abstract

BACKGROUND:

This study aimed to evaluate some of the major risk factors of myocardial infarction including dehydroepiandrosterone sulfate in patients with premature myocardial infarction (age <50 years old) and myocardial infarction (age ≥50 years).

METHODS:

This is a parallel case-control study on 50 premature myocardial infarction patients and 50 myocardial infarction patients. We also recruited 50 matched participants for each of the two groups. Patients and their control groups were assessed for dehydroepiandrosterone sulfate serum level, diabetes mellitus, hyperlipidemia, hypertriglyceridemia, and hypertension. In addition, family history of cardiovascular disease and current smoking was recorded. Univariate and multivariate logistic regression analyses were performed to evaluate predictors of premature myocardial infarction and myocardial infarction.

RESULTS:

No significant differences were observed between the demographic data of patients and their controls. The dehydroepiandrosterone sulfate serum level was significantly higher in patients with premature myocardial infarction compared with controls. Multivariate logistic regression analysis revealed only serum dehydroepiandrosterone sulfate dehydroepiandrosterone sulfate level to be significantly associated with premature myocardial infarction (odds ratio, 2.65; 95% confidence interval, 1.44 to 4.877; P = 0.002). Additionally, hypertension was found to be associated with myocardial infarction.

CONCLUSION:

Higher levels of serum dehydroepiandrosterone sulfate level are associated with premature myocardial infarction but not with myocardial infarction, and this association is independent of the effects of other risk factors.

KEYWORDS:

Dehydroepiandrosterone Sulfate; Myocardial Infarction; Risk Factors