Epidemiology

The effects of smoking and alcoholism in acute coronary syndrome

Correia J.; Neto V.; Santos J.; Pires I.; Goncalves L.; Costa A.; Cabral J.

Hospital Sao Teotonio, Viseu, Portugal

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Introduction: Several studies have concluded that smoking increases mortality in patients with coronary disease. On the other hand, a J-shaped dose-effect curve has been used to describe the relationship between alcohol and cardiovascular mortality. According to the majority of studies, a moderate intake of alcohol is associated with a decrease in mortality, while an excessive alcohol intake appears to increase mortality.

Aim: To evaluate the effect of smoking and excessive alcohol intake in hospital mortality and 1-year mortality in patients hospitalized due to acute coronary syndrome (ACS).

Methods: A single-centre retrospective study was conducted, with inclusion of all consecutive patients admitted in the Cardiology Department due to ACS. Follow-up started after hospital admission and ended upon hospital death, death within the following 12 months or 12 months after study entry. Patients were divided in two groups: smokers (Group-A) and non-smokers (Group-B), to analyse the effect of smoking in hospital mortality and 1-year mortality. To analyse the effect of excessive alcohol intake, patients were also divided in other two groups: Group-C (excessive drinkers) and Group-D (non-excessive drinkers). Statistical analysis was performed with SPSS and a p value < 0.05 was considered statistically significant.

Results: 1120 patients (68.9% male, mean age 69.12 ± 12.67 years) were included in this study. 20.5% were smokers and 3.2% had a previous excessive alcohol intake.

Between Group-A and Group-B, a statistically significant difference was observed in gender (93.1% male in Group-A vs 62.9% male in Group-B, $p = 0.002$), but not in age ($p = 0.116$). Hospital mortality rates in Group-A and Group-B were respectively 6.0% and 8.7% ($p = 0.191$) and 1-year mortality rates were 3.1% vs 5.1% ($p = 0.239$).

Between Group-C and Group-D, a statistically significant difference was observed in gender (94.4% male in Group-C vs 69.8% male in Group-B, $p < 0.001$), but not in age ($p = 0.730$). Hospital mortality rates in Group-C and Group-D were respectively 25% and 9.6% ($p = 0.003$) and 1-year mortality were 3.8% vs 6.6% ($p = 0.577$).

Conclusions: Smoking did not have a positive or negative effect in hospital mortality and 1-year mortality. However, excessive alcohol intake was associated with increased hospital mortality in this population.