EDITORIAL COMMENT

The smoker’s paradox: Not an argument against quitting smoking after acute coronary syndrome

Paradoxo do tabagismo na síndrome coronária aguda - não se trata de um argumento contra deixar de fumar após a síndrome coronariana aguda!

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This editorial refers to the article “The smoker’s paradox in acute coronary syndromes – is it real?” by Madalena Coutinho Cruz and co-workers, published in this issue of the Journal.1

In order to assess the possible protection provided by smoking during the in-hospital period and in the first year after acute coronary syndrome (ACS), the so-called ‘smoker’s paradox’, the authors collected data from all consecutive patients (n=3298) hospitalized due to ACS in their center between 2005 and 2014.

After excluding former smokers (n=368) and patients treated by fibrinolysis (n=203), and taking into consideration potential confounding factors related to smokers’ prothrombotic status, the authors performed a retrospective analysis of the remaining 2727 patients, comparing two groups: current smokers (n=1138, 41.7% of the population) and non-smokers (n=1589, 58.3%). Two endpoints were defined: in-hospital mortality and a composite endpoint including all-cause mortality, rehospitalization for cardiovascular causes, angiography, percutaneous coronary intervention and coronary artery bypass graft surgery at one year after ACS.

They found that current smokers, on average 15 years younger at presentation, showed a higher rate of STEMI than non-smokers (69.8% vs. 56.3%, p<0.001), in whom NSTEMI predominated. Current smokers also had a more benign clinical, hemodynamic and angiographic profile at hospital admission and a better in-hospital course. They also appeared to have a more favorable prognosis at one year, although they were more likely to be revascularized, mainly by PCI (84.1% vs. 67.0% in non-smokers, p<0.001), during hospital stay and in follow-up.

The raw data assessed by univariate statistics suggested that the smoker’s paradox would be found in this population, but after multivariate analysis with full adjustment for age, gender, heart rate, systolic blood pressure, Killip class, creatinine at admission and ACS type, all the differences disappeared, supporting the authors’ conclusions that the smoker’s paradox was not observed in the study population and that the initial apparent differences in outcome could be explained simply by smokers’ lower baseline risk.

The study’s data and conclusions, coming from a tertiary center with a large ACS population, managed by current state-of-the-art drug regimes and interventions, are significant. To the best of our knowledge, this is the first paper published in Portugal to study the smoker’s paradox with a sufficiently large population and with sufficient statistical power to support its conclusions.

The topic addressed by the authors is important, since several articles have been published in high-ranking medical journals (although contradicted by many others12) that suggest the existence of a paradoxical protection afforded...
Conflicts of interest

The author has no conflicts of interest to declare.

References