Response to Letter Regarding Article, “Discontinuation of Smokeless Tobacco and Mortality Risk After Myocardial Infarction”

First of all, we thank Drs Rodu and Phillips for contributing to further understanding of the effects of snus in the setting of an acute coronary syndrome. We are happy to provide more details about our study.1

The sample includes few snus-using women. We could therefore not study the effects of quitting snus in men and women separately. Nevertheless, the exclusion of subgroups should be based on subject matter knowledge of differential effects, for which we had none regarding snus and sex. When excluding women, reassuringly, quitting snus was associated with a hazard ratio of 0.54 (95% confidence interval, 0.30–0.96) and 0.56 (0.31–1.01) for models A and B, respectively. This is nearly identical to the observations in the primary study sample.

Unfortunately, a typo occurred regarding the total number of person-years at risk, despite the fact that the manuscript had been scrutinized by all coauthors and 4 reviewers. The correct number is 43,070 person-years at risk in the total sample (not 40,370, as mistakenly stated), rendering the reported incidence rate of 18.9 (deaths per 1000 person-years at risk) based on 812 deaths. This typo had no influence on the interpretation of the current study.

The question about the tobacco nonusers is interesting. First, the mentioned number of dual users (n=934) was at the time of the myocardial infarction, whereas the number of dual users at baseline (2 months after the myocardial infarction) was lower (n=299). To extrapolate and compare rates based on the previous number is incorrect, because all other rates (all age-adjusted) are defined at baseline. Second, the comment reflects ignorance about the sufficient component cause model, proposed in 1976.2 This is a cornerstone of modern causal inference understanding. Different individuals have different component causes that contribute to the sufficient cause of a myocardial infarction, and for death after a myocardial infarction, as well. Snus may be 1 component cause for snus-using individuals. Removing that component cause may prevent deaths. Nonusers of snus have other component causes of death after myocardial infarction than snus users, involving both measured and unmeasured risk factors. The comparison of snus quitters with nonusers will therefore not contribute to the understanding of snus as a potential cause of death after myocardial infarction.

Ideally, the effects of snus quitting after a myocardial infarction should be studied in the setting of a randomized, controlled clinical trial. In the meantime, our cohort study provides the best available evidence for those effects.

Disclosures

None.

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References


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