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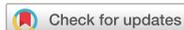
Editorial

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Impact of Smoking in Survivors from Acute Myocardial Infarction

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Cardiovascular disease and cancer are the leading causes of death in the world.[1] Currently in Korea, malignancy is the most common cause of death and heart disease is the second most common cause of death. Because cardiovascular disease and cancer share some risk factors, cancer patients can be considered as a high-risk group of cardiovascular disease, and cardiovascular disease patients also can be a high-risk group for cancer.[2,3] Because of the improving survival of cancer patients and the increasing number of cancer survivors, prevention of cardiovascular disease has become an important issue in the management of cancer[2,4] As the survival after major cardiovascular diseases, such as acute myocardial infarction (AMI), is getting longer, there is also a need for evidence for cancer prevention in cardiovascular disease, but there is only limited evidence.[5,6] In this issue of *Korean Circulation Journal*, Lee et al.[7] provides important data on the effects of smoking on long-term clinical outcomes and lung cancer risk among patients with AMI. Lung cancer and AMI account for the largest proportion of cancer and cardiovascular deaths, respectively. Cigarette smoking is an important modifiable risk factor that contributes greatly to both of the disease.[8] However, there is little data on the long-term effects of smoking on morbidity and mortality in patients with AMI. In those who survive AMI, smokers are often observed to have lower or similar mortality rates compared to non-smokers. This is presumed to be due to the fact that AMI patients who smoked had fewer other risk factors than AMI patients who did not smoke, but it is difficult to prove with real world data.

Lee and colleagues[7] used a well-established AMI registry and control the effects of other risk factors using the propensity score matching technique to compare 5-year mortality and morbidity between smoking and non-smoking patients. Before propensity score matching, smokers showed lower risk of all-cause mortality, heart disease mortality, and major adverse cardiovascular events (MACE) rates than non-smokers. However, after the propensity score matching, cigarette smoking was associated with 24% higher risk of all-cause mortality, 19% higher risk of heart disease mortality, and 13% higher risk of MACE. As expected, lung cancer risk was 2 to 3 times higher in smoking patients than in non-smoking patients before and after the propensity score matching.[7] Recently, an Israeli study reported an association between smoking and cancer incidence in AMI survivors and reported that quitting smoking even after AMI could reduce the risk of cancer.[9] Both this study and Lee's work are important real world data that demonstrate how important quitting smoking is for the better long-term management of AMI patients.

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