

Smoking and Coronary Disease: Smoking Cessation Is the Best Drug

Josep M. Ramon

Unidad de Tabaquismo, Hospital Universitario de Bellvitge, Hospitalet de Llobregat, Barcelona Spain

Smoking is the main preventable cause of illness and death, but only about 60% of all general practitioners and specialists trust their skills in counseling patients appropriately in smoking cessation. In patients who have had an acute myocardial infarction (AMI), quitting is associated with lower rates of reinfarction and increased survival. This alone explains the importance of counseling for smoking cessation in reducing nonfatal events and mortality from coronary heart disease. Most scientific societies^{1,2} place special emphasis on helping smokers to quit as one of the main measures of secondary prevention, which should be used systematically for such patients.

A recent study involving 9 European countries,³ including Spain, of patients with coronary heart disease who required hospitalization, found that for 20% of the patients smoking was not recorded in the medical record, and that for 35% no record of the number of cigarettes smoked had been entered in the chart during follow-up visits. Even more significant was the finding that 50% of all patients who were initially smokers continued to smoke, or had relapsed 3 months after the initial episode.

An excellent meta-analysis by Berkel et al⁴ studied the impact of interventions for smoking cessation on the prognosis for patients with coronary heart disease. When the results for 10 randomized studies were combined, 61% of the patients dropped out in the intervention group compared to 42% in control groups, with a 50% reduction in the number of smokers (OR=0.5; 95% CI, 0.41-0.61) when health professionals provided an intervention for coronary heart di-

sease patients who smoked. On the basis of observational research, the same study estimated a 38% reduction in mortality and a 43% reduction in nonfatal episodes in patients with coronary heart disease who quit smoking in comparison to patients who continued to smoke.

In view of these data, it is beyond doubt that patients with coronary heart disease who continue to smoke or who relapse after a few months have a worse prognosis than patients who quit permanently. Although the burden of care is a factor that must be taken into account, the ongoing nature of cardiological care for patients with coronary heart disease makes it possible to implement brief interventions that can play a fundamental role in the management of patients who smoke. These interventions have been summarized in four basic points: *a)* always ask the patient about cigarette consumption; *b)* give clear advice about quitting to patients who smoke; *c)* help smokers who want to quit, and *d)* establish follow-up measures that avoid possible relapses.

Several strategies have been used in the management of and in interventions for patients who smoke, but those that combine intensive counseling with behavioral strategies and pharmacological treatment have yielded the highest success rates.

With regard to counseling, a positive, individualized approach to the problem is desirable, as emphasizing the benefits of quitting is more motivating to patients. Behavioral strategies are based in part on the fact that smoking is a learned behavior, and their aim is to identify and change factors that are associated with smoking. We should offer strategies that make it possible to identify the factors associated with the desire to smoke, and replace them with other types of activity. If pharmacological treatment is used in association with counseling and behavioral strategies, the 12-month success rate can approach 30%.⁵

Two types of product are among the drugs of first choice that can be used for detoxification: nicotine replacement therapy (NRT) and bupropion. The use of NRT in patients with coronary heart disease has been

SEE ARTICLE ON PAGES 445-51

Correspondence: Dr. J.M. Ramon.
Unidad de Tabaquismo, Servicio de Medicina Preventiva,
Hospital Universitario de Bellvitge,
Feixa Llargu, s/n, 08907 Hospitalet de Llobregat, Barcelona, Spain
E-mail: jmramon@csub.scs.es

Full English text available at: www.revespcardiol.org

somewhat controversial because some cardiovascular effects of cigarettes have been attributed to nicotine. There are several mechanisms by which smoking is associated with coronary events. First, and possibly most important, smoking mediates a state of hypercoagulability that favors thrombosis. These effects have not been observed during NRT (skin patches or chewing gum). A second mechanism is the role of carbon monoxide on the vascular wall; this mechanism may operate in cigarette smoke, but not in NRT. Thirdly, and lastly, the hemodynamic effects of nicotine raise the heart rate, blood pressure and heart work, thus increasing oxygen demands. Information available to date indicates that the effects of NRT on the increase in heart work are similar to or possibly weaker than the effects of smoking. Although the risk associated with NRT in patients with cardiovascular disease has not been investigated in depth, experimental studies suggest that the risk is no higher than that associated with persistent smoking.^{6,7}

In this issue of REVISTA ESPAÑOLA DE CARDIOLOGÍA, Serrano et al.⁸ report an excellent case-control study in a cohort of patients diagnosed as having had a first episode of AMI. They describe the association between persistent smoking and the frequency of new episodes. Cases consisted of patients with fatal or nonfatal reinfarction during the study period, and controls were patients from the same cohort who had no new episodes after the initial diagnosis. Both cases and controls received identical secondary prevention interventions, and the number of nonsmokers at the start of the study was similar in both groups. It was noteworthy that the number of patients with a second episode who continued to smoke was more than twice the number seen in the control group.⁸ Persistent smoking was significantly associated with recurrence of episodes of coronary disease, with a 3-fold higher likelihood of recurrence in comparison to patients who quit. This association was seen regardless of other factors such as lifestyle, pharmacological treatment and personal or familial antecedents.

Results like those reported by Serrano et al. illustrate once again the importance of quitting in patients with coronary heart disease. More intervention programs are needed to help these patients quit-especially those with a greater degree of nicotine dependence and

those who find it most difficult to remain abstinent, in view of the important implications for associated morbidity and mortality in patients who continue to smoke. Programs built on protocols for interventions that begin during hospitalization have shown encouraging results⁹ in patients who have quit and who were highly motivated to remain abstinent. In contrast, specialized interventions in patients who continued to smoke and who were less motivated require further study to evaluate their efficacy in patients with coronary heart disease.

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