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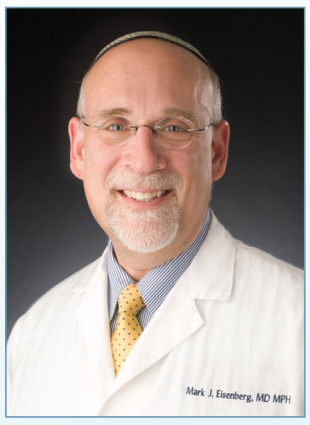

Mark J. Eisenberg, MD, MPH

Principal Investigator, Centre for Clinical Epidemiology, Lady Davis Institute
Director of the Cardiovascular Health Services Research Group, Jewish General Hospital
Professor of Medicine, McGill University

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Bupropion for Smoking Cessation in Patients Hospitalized With Acute Myocardial Infarction

A Randomized, Placebo-Controlled Trial

Mark J. Eisenberg, MD, MPH; Sonia M. Grandi, MSc; André Gervais, MD; Jennifer O'Loughlin, PhD; Gilles Paradis, MD, MSc; Stéphane Rinfret, MD, SM; Nizal Sarrafzadegan, MD; Sat Sharma, MD; Claude Lauzon, MD; Rakesh Yadav, MD; Louise Pilote, MD, MPH, PhD

Objectives The purpose of this study was to examine smoking cessation rates among smokers with AMI to determine whether bupropion, started in-hospital, is safe and can improve cessation rates at 1 year.

Background Bupropion doubles quit rates in otherwise healthy smokers and patients with stable cardiovascular disease. Although 2 previous trials examined the use of bupropion in patients hospitalized with acute cardiovascular disease, these studies have been inconclusive with respect to its safety and efficacy in patients with acute myocardial infarction (AMI).

Methods We conducted a multicenter, double-blind, placebo-controlled, randomized trial in smokers hospitalized with AMI. Participants received bupropion or placebo for 9 weeks and were followed for 12 months. Both groups received low-intensity counseling. Point prevalence abstinence was assessed by 7-day recall and biochemical validation of expired carbon monoxide.

Results A total of 392 patients were randomized (mean age 53.9 ± 10.3 years); 83.5% were male; 64.9% had ST-segment elevation myocardial infarction). Patients smoked a mean of 23.2 ± 10.6 cigarettes/day for a mean of 32.9 ± 12.4 years. At 12 months, point prevalence abstinence rates were 37.2% in the bupropion group and 32.0% in the placebo group ($p = 0.33$; % difference after adjusting for between center differences 3.9%). Continuous abstinence rates were 26.8% and 22.2%, respectively ($p = 0.34$). Major adverse cardiac event rates were similar (13.0% vs. 11.0%, respectively; $p = 0.64$).

Conclusions Two-thirds of patients return to smoking by 12 months after AMI. Bupropion is well tolerated and seems to be safe to use in the immediate post-AMI period. However, bupropion is not effective for smoking cessation in patients post-AMI. (Zyban as an Effective Smoking Cessation Aid for Patients Following an Acute Coronary Syndrome: The ZESCA Trial; NCT00689611)

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