Does Amlodipine Increase Cancer Incidence?

To the Editor:

The Prospective Randomized Evaluation of the Vascular Effects of Norvasc Trial (PREVENT) amplifies the controversy over calcium antagonists and increased cancer risk. In this 36-month, placebo-controlled, randomized trial, the calcium antagonist amlodipine had no effect on the angiographic progression of coronary atherosclerosis or on the risk of major cardiovascular events. In the group assigned to amlodipine, the annualized rates of coronary artery bypass grafting and unstable angina were reduced by 1.0% and 2.1%, respectively.

Unfortunately, incident cancers increased in the group assigned to amlodipine. The annualized rate of incident cancers was 1.8% in the amlodipine group and 1.0% in the placebo group. Thus, the 0.8% annualized increase in incident cancer in the amlodipine group was similar in magnitude but opposite in direction to the 1.0% annualized reduction in coronary artery bypass surgery.

Because some observational data suggest that calcium antagonists may cause cancer, this finding in PREVENT warrants further investigation. From a public health perspective, for every 1 million patients taking amlodipine for 1 year, the incident cancer rate will increase by 8000 because of the drug. Perhaps we are trading one problem for another.

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Response

We appreciate the comments of Dr Goldstein regarding the incidence of cancer seen with amlodipine in the Prospective Randomized Evaluation of the Vascular Effects of Norvasc Trial (PREVENT). Because of the concern raised by Pahor et al, we carefully reviewed each case of cancer with an independent group of oncologists. In view of the relatively small number of events, no firm conclusions could be reached regarding the risk of cancer associated with use of amlodipine. Additional cancer data, however, will be available in the next 2 to 3 years from several large-scale trials in which amlodipine is being compared with placebo or other antihypertensive strategies.

We believe that the reduction in the incidence of hospitalization for angina pectoris and the need for revascularization observed in PREVENT suggests a role for amlodipine in patients with coronary artery disease.

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