Prognostic value of coronary electron-beam computed tomography for coronary heart disease events in asymptomatic populations. Am J Cardiol 2000;85:945–8.

REPLY

We appreciate Dr. Budoff’s interest in our paper on C-reactive protein and calcium in postmenopausal women. The hypothesis tested in our study (1) was whether postmenopausal women enrolled in the Females, Lipids, Activity and Sex Hormones (FLASH) study with coronary calcium by electron beam computed tomography (EBCT) would have higher concentrations of high sensitivity testing for C-reactive protein (hsCRP), an inflammatory marker believed to be an independent risk factor for cardiovascular disease (2). However, we found no evidence of a positive association of hsCRP and calcium by EBCT. We suggested that hsCRP may be a marker for inflammation and EBCT may be a marker for more and more severe atherosclerotic plaque. We also stated that these data highlight the importance of careful prospective clinical evaluation of emerging technologies such as EBCT, the same conclusion reached by the recent American College of Cardiology/American Heart Association (ACC/AHA) Expert Consensus panel on EBCT (3).

Dr. Budoff takes issue with our statement that “individuals with normal EBCT scores may nonetheless suffer MI.” However, this statement is supported by the data not only in the paper referenced, but also in papers by Secci (4) (ref. 27 in the paper), Arad (5) (ref. 14 in the paper), South Bay Heart Watch (6) (ref. 28 in the paper), Raggi (7), and by the recent ACC/AHA statement (3).

In addition, Dr. Budoff states that “the question answered in the paper is that not every asymptomatic person with atherosclerosis has inflammation, which was known from the CARE study.” However, as the CARE study exclusively studied patients after myocardial infarction, it did not provide any information about asymptomatic persons. Similarly, the FLASH study patients were all asymptomatic, but many did not have atherosclerosis. Thus, his interpretation of these papers is inconsistent with their study designs.

Finally, the CARE study did not measure EBCT scores. Hence, Dr. Budoff’s statement that the CARE study (8) showed that the “combination [calcium scores and hsCRP levels] more strongly predicts future events” is incorrect. However, we agree with Dr. Budoff that this is an important hypothesis to test.

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REFERENCES