Drug Therapy for Hypercholesterolemia
Time to End the Double Standard

In his Viewpoint paper regarding atherosclerosis screening, Shah (1) decries the “double standard” of requiring proof of clinical benefit for imaging studies but not for clinical risk scores. However, a far more troublesome double standard relates to the treatment of hypercholesterolemia versus the treatment of other modifiable cardiovascular risk factors. The initiation of drug therapy for hypertension, diabetes, and cigarette smoking is not dependent on any calculation of the estimated risk of developing a hard cardiovascular end point within an arbitrary time period. Those with hypertension or diabetes who do not reach their treatment goals with lifestyle modification alone or those who are unable to quit smoking “cold turkey” are appropriately treated with drug therapy. In fact, the Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC 7) explicitly states that it “does not stratify hypertensive individuals by the presence or absence of risk factors . . . in order to make different treatment recommendations . . . JNC 7 suggests that all people with hypertension . . . be treated” (2). Among the modifiable cardiovascular risk factors, only hypercholesterolemia requires anything other than the presence of the risk factor itself to prompt treatment.

Shah (1) explicitly raises this issue himself, but dismisses the unconditional treatment of hypercholesterolemia with statins because of concerns regarding cost, need for lifetime use, and intolerance. However, these concerns are certainly no different than those associated with drug treatment for hypertension or diabetes, issues not addressed by Shah (1). Moreover, statins are among the safest medications ever introduced (3) and are generally no more expensive or risky than many widely prescribed antihypertensive and antidiabetic drugs. Most remarkably, Shah (1) is not in favor of unconditional treatment of hypercholesterolemia, in part because statin therapy “only addresses about 30% to 50% of the risk.” It is difficult to understand why a reduction of risk of this magnitude for a condition that accounts for nearly one-third of all deaths worldwide would represent anything other than a powerful endorsement of treatment. It is time to embrace the unconditional treatment of hypercholesterolemia and bring lipid treatment in line with the well-established treatment paradigms for other cardiovascular risk factors.

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Letters to the Editor

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In his Viewpoint paper regarding atherosclerosis screening, Shah (1) decries the “double standard” of requiring proof of clinical benefit for imaging studies but not for clinical risk scores. However, a far more troublesome double standard relates to the treatment of hypercholesterolemia versus the treatment of other modifiable cardiovascular risk factors. The initiation of drug therapy for hypertension, diabetes, and cigarette smoking is not dependent on any calculation of the estimated risk of developing a hard cardiovascular end point within an arbitrary time period. Those with hypertension or diabetes who do not reach their treatment goals with lifestyle modification alone or those who are unable to quit smoking “cold turkey” are appropriately treated with drug therapy. In fact, the Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC 7) explicitly states that it “does not stratify hypertensive individuals by the presence or absence of risk factors . . . in order to make different treatment recommendations . . . JNC 7 suggests that all people with hypertension . . . be treated” (2). Among the modifiable cardiovascular risk factors, only hypercholesterolemia requires anything other than the presence of the risk factor itself to prompt treatment.

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I appreciate the comments by Dr. Cooper regarding my Viewpoint paper (1). I fully concur with Dr. Cooper that 30% to 50% relative cardiovascular risk reduction with statins is a highly clinically worthwhile benefit, but I beg to differ that unconditional treatment of everyone without known atherothrombotic cardiovascular disease and hyperlipidemia with a statin is appropriate. It is an established fact that atherothrombotic cardiovascular disease does not develop in a significant proportion of subjects with hyperlipidemia, and, conversely, a significant proportion of subjects with atherothrombotic cardiovascular disease do not have hyperlipidemia; in fact, the real definition of what constitutes hyperlipidemia is itself unclear. If the goal of using a statin is to reduce atherothrombotic cardiovascular events, then it is unrealistic to expect those patients without significant atherosclerosis to benefit from statin therapy even if they have hyperlipidemia; in such subjects, one can only expect side effects and extra costs associated with statin use. Fortunately, we now have the ability to identify subclinical atherosclerosis in 2 major vascular beds noninvasively so that those patients without atherosclerosis can be observed and reassessed while adopting a healthy lifestyle without resorting to statin therapy. Because hypertension has adverse effects beyond simply an association with atherosclerosis, such as increased risk of stroke, especially hemorrhagic stroke, renal failure, congestive heart failure, and aortic aneurysm formation, one cannot equate hyperlipidemia management with hypertension management. Similarly, smoking-associated health risk includes lung disease, cancer, and thrombotic cardiovascular events even with minimal atherosclerosis; smoking cessation is advisable for every smoker regardless of other risk factors. In this day and age, where we are headed toward the concept of “personalized medicine” (matching treatment to underlying risk and disease phenotype rather than a “one size fits all” strategy, which has been the prevailing paradigm), the approach outlined in my Viewpoint paper is a step in that direction.

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