Commentary

Quality and Patient Safety

In Response: Statins Not Beneficial in Most Chest Pain Admits

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While I share Dr. Mosley's skepticism at some of the recent hope for 3-hydroxy-3-methyl-glutaryl-CoA reductase inhibitors (statins) as treatment for non-vascular illnesses, I disagreed with his assertion that lipid levels should not be evaluated in the emergency department. Though Dr. Mosley's cynicism regarding pharmaceutical companies' influence on research findings may be well founded[1], it should be pointed out that large, independently funded studies showing the mortality benefit of lipid reduction[2] and lipid reduction specifically by statins[3] in high-risk populations have been in the literature since the 1980s.

When a statin-naïve patient presents with chest pain, his or her cardiovascular risk cannot be evaluated fully without knowledge of lipid status, a position endorsed by the National Cholesterol Education Program.[4] The point that low-risk patients may not benefit from statin therapy is moot until all the relevant data are known. Young people with heterozygous familial hypercholesterolemia, a common condition whose mortality can be reduced with cholesterol-lowering therapy, present to physicians every day complaining of chest discomfort.

In people already prescribed statins, compliance, even among high-risk patients, is poor.[5] Beside directly questioning the patient, a method whose poor reliability is highlighted by the recent national movement toward "medication reconciliation", adherence can be judged in only one way: calculation or direct measurement of the serum low-density lipoprotein (LDL) level. Calculation of the LDL can be problematic because, as Dr. Mosley points out, a non-fasting specimen may be incalculable secondary to high serum triglyceride content. If the patient is non-fasting, though, the "non-HDL" cholesterol level serves as a suitable alternative.[6] In the near future, measurement of the LDL level likely will be replaced by measurement of apolipoprotein B, which will eliminate the need for a fasting specimen.[7]

While it is true that the immediate post-myocardial infarction effect of statin therapy has not lived up to its initial promise, the long-term effect of statins on mortality in high-risk populations is so profound, roughly a 1% decrease in five-year mortality for every 1 mg/dl reduction in LDL in high risk groups[4], that adherence to therapy must be evaluated.

Hypercholesterolemia is one of the primary modifiable risk factors for cardiovascular death. A lipid panel, fasting or not, is a relatively inexpensive test that aids in risk-stratification of patients presenting with chest pain, helps evaluate compliance in people already prescribed statins, and is indispensable to the patient's primary care provider, hospitalist, cardiologist, or endocrinologist.

References

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