CRPスクリーニングは従来の心臓リスク評価を改善しない（Abstract＃21685）

ASCOT：ASCOTの結果がCRPをスタチン処方の指標とすることに関する論争をあおり立てる

ASCOT: Results from ASCOT fuels debate over using CRP as an indication for prescribing statins

高感度C反応性蛋白スクリーニングは伝統的な心血管疾患リスクファクターを有する中年患者のリスク評価をほんのわずかしか改善しない、とのレイトブレイキング臨床試験結果が2010年AHA学会で発表された。研究者らは、プラセボを対照としたアトロバスタチンのコレステロール低下効果を比較したAnglo-Scandinavian Cardiac Outcomes Trial（ASCOT）に参加した英国およびアイルランドの患者4,853人を解析した。その結果、参加者のベースライン時の低密度リポ蛋白（LDL）コレステロールおよびC反応性蛋白（CRP）は両者ともに心血管イベント予測能を有することが示された。しかし、スタディ開始時点の患者の他のリスクファクターまたはトライアル中のLDLの変化を考慮した後では、CRPは心血管イベントとの相関を失った。筆者らは、JUPITERトライアルなどの近年のスタディを考慮すると、これらの患者においてCRP計測のさらなる価値が認められなかったことは驚きであると述べている。JUPITERにおいて研究者らは、元のコレステロールレベルが正常でCRP上昇以外に他のリスクファクターを有さない人々にコレステロール低下薬スタチンを投与することにより、初回の心血管イベントが37%減少したことを示した。JUPITERと異なりASCOTではCRPが心血管リスク予測を改善するまたはスタチンによるCRP低下効果により心血管イベントが減少するとの仮説を支持しなかった。

Full Text

High-sensitivity C-reactive protein screening only minimally improved risk assessment in middle-aged patients with traditional cardiovascular disease risk factors, according to late-breaking clinical trial research presented at the American Heart Association's Scientific Sessions 2010.

Researchers analyzed 4,853 patients in the United Kingdom and Ireland who were part of the Anglo-Scandinavian Cardiac Outcomes Trial (ASCOT), which compared the cholesterol-lowering effects of the drug atorvastatin to a placebo.

They found that participants' baseline levels of low-density lipoprotein (LDL) cholesterol and levels of C-reactive protein (CRP) were both predictive of cardiovascular events. However, after the researchers considered other risk factors at the start of the study, or in-trial changes in LDL, the changes in CRP were no longer linked to cardiovascular events.

"Our key findings are that if you measure CRP at baseline in a population of middle-aged and elderly people with high blood pressure, and with a few additional risk factors for cardiovascular disease, it does independently predict cardiovascular events over the course of our trial," said Peter S. Sever, F.R.C.P., principal investigator of ASCOT and professor of clinical pharmacology and therapeutics at Imperial College London. "But when you add screening CRP values to a conventional risk model used by doctors, such as the Framingham Risk Score, CRP really has a very small additive effect."

Participants in the analysis were 65 years old on average, predominantly male, with total cholesterol levels under 250 milligrams per deciliter (mg/dL) of blood, including levels considered normal to moderately elevated. In the treatment group, the statin drug reduced LDL by 40 percent and reduced median CRP by 27 percent over six months.

During 5.5 years of follow-up, 485 cardiovascular events occurred in ASCOT particpants. Those cases were age and sex-matched with 1,367 controls from within the group who hadn't had a cardiovascular event. The researchers then used statistical models to evaluate the association between cardiovascular events and patients' cholesterol and CRP levels.

In those taking atorvastatin, LDL below the median while on treatment was associated with a reduction in cardiovascular events compared with those taking placebo or with those with LDL above the median. This risk reduction was unchanged after the researchers adjusted for the participants' other baseline risk factors.

However, in those taking atorvastatin, CRP below the median was not associated with reduced cardiovascular events compared with those with CRP above the median after adjusting for other risk factors and the changes in LDL.

The lack of added value of CRP measurement in the patients "was surprising in light of recent studies such as the randomized, placebo-controlled JUPITER trial," Sever said.

In JUPITER, researchers found that taking a cholesterol-lowering statin reduced first cardiovascular events by 37 percent in people who primarily had normal cholesterol levels and no other risk factors except elevated CRP.

"The message coming out of the JUPITER study was that we should be screening people for CRP irrespective of their other risk factors," Sever said. "That's very, very expensive and almost certainly not a cost-effective intervention, particularly given these findings that measurement of CRP doesn't add anything in a much more widely representative population."

ASCOT doesn't support the hypothesis that CRP improves cardiovascular risk prediction or that the CRP-lowering effect of statins reduces cardiovascular events, Sever said.

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