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Cholesterol Drugs May Cut Risk of Clots

By PAM BELLUCK

New results from a large study suggest that the drugs known as statins may have a benefit beyond lowering cholesterol: reducing the risk of developing blood clots in the veins.

The study, published on the Web site of The New England Journal of Medicine and presented Sunday at an American College of Cardiology convention, found that relatively healthy people who took a potent statin were 43 percent less likely than those who took a placebo to get a blood clot known as venous thromboembolism.

The clots, which often develop in the legs, can be fatal if they travel to the lungs. The Centers for Disease Control and Prevention estimates that up to 600,000 Americans get venous clots each year and that at least 100,000 die from them. The risk of suffering blood clots increases with age, and people who are obese, have certain genetic abnormalities or have been inactive because of surgery or injury are more prone to develop them.

The results are from a large study called Jupiter, led by researchers at Brigham and Women's Hospital in Boston, that looked into the effects of statins on people without high cholesterol or histories of heart disease. It involved 17,802 people -- men 50 and older and women 60 and older -- in 26 countries who took either a statin or a placebo.

The main Jupiter findings, published in November, were that the statin lowered the risk of heart attack by more than half and significantly lowered the risk of stroke, angioplasty, bypass surgery and death. As a result, national medical panels are considering broadening guidelines on who should be taking statins.

Studying blood clots was a secondary goal, said Jupiter's lead investigator, Dr. Paul M. Ridker, the director of the Center for Cardiovascular Disease at Brigham and Women's Hospital. With the relatively healthy people in the study, the number of clots was small -- 94 total -- but the placebo group developed 60 of them, compared with 34 for those taking the statin.

Dr. Ridker said common treatments for people who have had blood clots, usually several months of anticoagulants like warfarin or heparin, can cause hemorrhaging and require frequent monitoring. But blood clot reduction in the study "came without risk of hemorrhage at all," he said.

Jupiter is the first clinical trial to consider the effect of statins on blood clots in randomly selected people, although smaller studies have suggested similar results, including a 2008 review at Albert Einstein Medical Center in New York of the records of cancer patients who took statins.

Dr. Ridker says he has begun prescribing statins, in addition to anticoagulants, to patients who have had a previous venous blood clot. Some experts, however, said more proof was needed.

"I can't imagine that you would be treating people prophylactically yet," said Dr. Timothy J. Gardner, the president of the American Heart Association. "The dilemma is we don't want to put patients on medications that they don't need, especially if we're putting them on medications for life or for long term."

The statin used in the Jupiter study is the most potent on the market, rosuvastatin, sold as Crestor and made by AstraZeneca, which sponsored the study. Some consumer health advocates say Crestor raises the risks of side effects like muscle deterioration and kidney problems. These were not problems in the Jupiter trial, although there was a small increase in diabetes. While it is unclear whether every statin would have the same effect as Crestor, most experts believe statins produce similar results, depending on the dose.

At the cardiology convention and on the Web site of the journal *The Lancet*, Dr. Ridker will present another set of results from the Jupiter study looking at the role of high-sensitivity C-reactive protein, or CRP, which indicates inflammation in the body. While people chosen for the study did not have high L.D.L., or bad, cholesterol, they did have high levels of CRP.

After an average of less than two years, Dr. Ridker found that the people taking the statin who had the lowest risk of heart attack, stroke and other problems were those who wound up not only with very low cholesterol but also very low CRP levels. Dr. Ridker said the findings indicated that people with high CRP levels should be taking statins, a recommendation that the national medical panels are considering. And he said that inflammation, and not just high cholesterol, appeared to cause heart problems, rather than merely being an indicator of problems.

"This does in my mind add strength to the hypothesis that inflammation is causal," said Dr. Ridker, who helped invent a CRP test.

Not all experts agree.

"Whether this study confirms that inflammation increases risk of heart attack remains to be determined," said Dr. Daniel J. Rader, a heart researcher at the School of Medicine at the University of Pennsylvania. "Many people would say it simply proves that CRP is a marker of risk."

Dr. Rader and others said they were not convinced that patients taking statins should be tested to see whether their CRP levels, and not just their cholesterol, had dropped. If the CRP levels stayed high but other indicators improved, they said, that might not mean the statin was failing or should be increased.

If "L.D.L. is down but CRP continues to remain elevated, would increasing the statin further provide additional benefit?" said Sidney Smith, a professor of medicine at the University of North Carolina and a past president of the American Heart Association. "This doesn't answer that question. My approach would be to work on getting the patient to stop smoking, and other lifestyle factors."
