Stopping cholesterol drugs may be associated with increased risk of Parkinson's

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People who stop taking cholesterol drugs may be at an increased risk for developing Parkinson's disease, according to research that appears in the July 24, 2013, online issue of *Neurology*, the medical journal of the American Academy of Neurology. Previous studies on the relationship between cholesterol drugs called statins and the risk of Parkinson's disease have had inconsistent results.

The current study involved 43,810 people in Taiwan who were taking statins and did not have Parkinson's disease. Taiwan's compulsory national health insurance program reimbursement policy requests that doctors stop prescribing statins once the patient's cholesterol reaches the treatment goal, which is contrary to standard treatment in the United States.

"This policy allowed us to see whether there was any difference in the risk of Parkinson's in people who stopped taking statins compared to the ones who kept taking them," said study author Jou-Wei Lin, MD, PhD, of National Taiwan University in Taipei.

The study found a difference between two types of statins. The use of lipophilic, or fat-soluble, statins such as simvastatin and atorvastatin was associated with a reduced risk of Parkinson's, while no such association was found for hydrophilic, or water-soluble, statins such as pravastatin and rosuvastatin.

Those who stopped taking the fat-soluble statins were 58 percent more likely to develop Parkinson's disease than those who kept taking the drugs, an absolute risk of 2.65 cases per one million person-days. This result was consistent even after adjusting for other conditions such as diabetes and high blood pressure.

The study also looked at how many people taking the two types of statins developed Parkinson's disease, compared to the number of person-days spent on the medication to come up with an incidence rate. A total of 25 people taking fat-soluble statins developed Parkinson's from a total of nearly 15 million person-days on the drugs, for a rate of 1.68 cases per one million person-days on the drugs. For the water-soluble statins, 14 people developed Parkinson's from nearly four million person-days on the drugs, for a rate of 3.52 cases per one million person-days on the drugs.

"The fat-soluble statins are better able to cross the blood-brain barrier than the water-soluble statins," Lin said.

Provided by American Academy of Neurology

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