Cholesterol-lowering drugs get more risky: link to kidney injury

POSTED ON MAY 3, 2013 BY JOEL FUHRMAN, M.D.

Statin drugs inhibit an enzyme that is crucial for the production of cholesterol; they are the most widely taken drugs among adults in the U.S, and their use has expanded dramatically in recent years. About 20% of Americans age 45-64 and 45% of those 65 and older take statin drugs. Between 1988 and 2006 the use of statin drugs in U.S. adults over 45 increased by a factor of 10.2

The benefit-to-risk ratio of giving statins to individuals with elevated cholesterol but no prior history of coronary heart disease remains controversial among many scientists and physicians.³⁻⁶ It is especially worth questioning the risk of side effects when there is a safe, effective alternative to these medications – excellent nutrition and exercise – that carries only health benefits along with its cholesterol-reducing efficacy.

Of course, dropping elevated cholesterol back into the favorable range is beneficial, but we know that medication is not required to achieve this result. Furthermore, we now have evidence that statins expose people to unnecessary risks. A 2010 analysis of medical records in the U.K. found increased likelihood of liver dysfunction, impaired muscle function, acute kidney injury and



cataracts during the first five years of statin use. Moreover, two metaanalyses in 2009 and 2010 reported a moderately increased risk of diabetes in statin users.

Now, new data has confirmed the connection between statin use and acute kidney injury. Acute kidney injury is a sudden loss of the kidneys' filtering capability; the normal functions of removing waste products from the blood and balancing fluid and electrolytes cannot be carried out. Acute kidney injury is a serious condition that can lead to permanent damage or loss of kidney function or even death. In the current study, high-potency vs. low-potency statin doses were compared (high potency was defined as minimum 10 mg rosuvastatin, 20 mg atorvastatin, or 40 mg simvastatin). The study examined Canadian healthcare records to investigate a total of 2 million patients who had been newly prescribed a statin, and the incidence of hospitalization for

acute kidney injury during early statin use. **Those who began taking high potency statins had a 34% increased risk of being hospitalized for acute kidney injury within the first six months of statin therapy compared to those on lower doses.** Although this study did not evaluate the risk associated with low-potency statin use vs. no statin use, the data does establish that statin drugs may have harmful effects on the kidney.⁷

The reason for the link between statins and acute kidney injury remains unclear, but there are preliminary theories. Some scientists have hypothesized that muscle breakdown associated with statin use may be responsible, since this leads to the release of kidney-toxic muscle components into the bloodstream. Another hypothesis centers on oxidative stress due to statin-associated diminished production of coenzyme Q10, one of the body's most powerful natural antioxidants.⁷

Never forget: all medications have side effects, many of them serious; we must exercise appropriate caution before taking medications. Statin drugs are a ubiquitous treatment for a preventable condition; elevated cholesterol can be easily reduced with lifestyle measures in almost all cases.

If you have elevated cholesterol levels, you have a choice. You can take a statin drug that will expose you to increased risk for diabetes and the potential for damage to your liver, kidneys and muscles; or, you can makedietary changes that will not only reduce cholesterol but blood pressure as well, and at the same time reduce your risk of cancer, diabetes and dementia. Which will you choose?

To learn more about the preventive and therapeutic potential of a Nutritarian diet, read my book *Eat For Health*. References:

- 1. Health, United States, 2011: With Special Feature on Socioeconomic Status and Health. In. Hyattsville (MD); 2012: Health, United States].
- 2. Latest Report on the Nation's Health Shows Growing Medical Technology Use. 2010. http://www.cdc.gov/nchs/pressroom/10newreleases/hus09.htm. Accessed May 2, 2013.
- 3. Cholesterol Treatment Trialists C, Mihaylova B, Emberson J, et al: The effects of lowering LDL cholesterol with statin therapy in people at low risk of vascular disease: meta-analysis of individual data from 27 randomised trials. Lancet 2012;380:581-590.
- 4. Ray KK. Seshasai SR. Ergou S, et al: Statins and all-cause mortality in high-risk primary prevention: a meta-analysis of II randomized controlled trials involving 65,229 participants. Arch Intern Med 2010;170:1024-1031
- 5. Moyer MW: The Stats on Statins: Should Healthy Adults Over 50 Take Them? 2012. Sci Am. http://www.scientificamerican.com/article.cfm?id=statins-should-healthy-adults-over-50-take-them. Accessed 6. Green LA: Cholesterol-lowering therapy for primary prevention: still much we don't know. Arch Intern Med 2010;170:1007-1008.
- 7. Dormuth CR, Hemmelgarn BR, Paterson JM, et al: Use of high potency statins and rates of admission for acute kidney injury: multicenter, retrospective observational analysis of administrative databases. BMJ 2013;346:f880.