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STATINS AFTER ISCHEMIC STROKE OF UNDETERMINED ETIOLOGY IN YOUNG ADULTS

Luca Mascitelli, Udine, Italy; Mark R. Goldstein, Naples, FL: Putaala et al.¹ studied a group of young patients with a first stroke of undetermined etiology and found that individuals who used statin poststroke had lower rates of vascular events in long-term follow-up. However, when the whole young population was studied after first-ever ischemic stroke, it was found that dyslipidemia did not predict the occurrence of future arterial thrombotic events.² The present study¹ suggests that higher cholesterol levels actually are protective after ischemic stroke of undetermined etiology.

It is well known that baseline total cholesterol levels of statin-treated populations are higher than those of the general population. Cholesterol levels of the statin-treated patients in this study¹ were significantly higher than those of the non-statin-treated patients. Higher serum cholesterol concentrations have been shown to be associated with better outcome after stroke.³ Furthermore, an inverse relation between cholesterol and stroke severity and poststroke mortality has recently been reported, suggesting that higher cholesterol favors the development of small-vessel disease and therefore less severe strokes are associated with lower mortality.⁴ Therefore, we question the usefulness and safety of long-term treatment with statins on all young patients with stroke of unknown etiology. Regarding cholesterol and outcomes after stroke, perhaps more is better.

Author Response: Jukka Putaala, Elena Haapaniemi, Markku Kaste, Turgut Tatlisumak, Helsinki: We thank Drs. Mascitelli and Goldstein for their comments on our article. We showed that young patients with ischemic stroke of undetermined etiology are likely to benefit from statin treatment in prevention of new strokes, myocardial infarctions, or other vascular events.¹

Several issues mentioned by Mascitelli and Goldstein need clarification. First, the group treated with statins not only had a poorer lipid profile, but were also older and had overall greater burden of vascular risk factors. Despite these features, they had fewer vascular events compared with those never on statins. This strongly supports the beneficial pleiotropic effects of statins on secondary prevention in this patient group. Furthermore, it has been shown that statins initiated before or immediately after ischemic stroke improved early and long-term survival and functional outcomes.⁵ Second, higher serum total cholesterol and triglycerides are shown to be associated with better functional outcome and reduced long-term mortality after ischemic stroke,^{3,4} but not with decreased risk for recurrent vascular events in the long term, which was the scope in our study. Third, our study included only patients with undetermined stroke etiology with no signs of small-vessel disease or any other probable or possible cause. Moreover, the comparison groups had similar symptom severity and anatomic lesion distribution. The beneficial effects of statins cannot then be due to underlying factors that might have favored development of smaller lesions.

Randomized data show that the risk of future vascular events can be safely and effectively reduced in patients with a recent TIA or stroke.⁶ Our observational study adds to that evidence and supports the view that statins should be considered in every young patient with stroke of unknown cause.

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Statins after ischemic stroke of undetermined etiology in young adults

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