Letters to the Editor

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Meta-Analysis of Statins for Aneurysmal Subarachnoid Hemorrhage Falls Short

To the Editor:

The conclusions of the meta-analysis recently published in your journal by Sillberg and colleagues regarding the use of statins to prevent cerebral vasospasm after aneurysmal subarachnoid hemorrhage (SAH) are concerning.1 Although we agree that the pleiotropic effects of statins are intriguing and that several agents in this class have exhibited some promise in the setting of SAH, the statement in the abstract that the data “support the routine use of statins in the care of patients with aneurysmal SAH” is disagreeable to us. We are disappointed that your prestigious journal published such a weak study with such a strong clinical implication statement that does not seem to be justified by the small meta-analysis.

The inclusion of 2 Phase II studies and a non-peer reviewed abstract as the sole contributors to a meta-analysis is fraught with problems. Nonhomogeneous patient populations, low numbers of subjects in each study, and the use of a variety of clinically and nonclinically relevant (and at times subjective) outcomes to measure treatment effect make these reports difficult to reasonably combine into a definitive statement for “routine” clinical direction. We should endeavor to avoid the medico-legal ramifications of such a weakly supported clinical recommendation, rather than highlight them in the abstract.

Additionally, two of the supporting papers included in Table 2 (Tseng reference #9 and Tseng reference #10)2,3 of Sillberg and colleagues’ article are simply posthoc analyses of data from the original randomized controlled trial (Tseng reference #8)4 which had already been included in their meta-analysis. Although this is mentioned accurately in the text, it is not evident in the table. Finally, two other reports have been recently published which merit mentioning, though they are not studies which would have met inclusion criteria because of their retrospective design.5,6 Both studies describe the use of statins in patients with aneurysmal SAH and do not support routine application of this therapy, either in patients receiving statins before SAH or in those prescribed statins after ictus.

Medicine has a poor recent record of premature adoption of therapies based on single or small randomized controlled trials which have turned out to be “wrong.” This practice exposes patients to therapies which may not confer the extent of benefit which we may initially perceive and may often delay much needed larger well-designed trials which would define the role of therapy in standard clinical care.7,8 We should continue to exercise caution in interpreting the results of small underpowered studies (and meta-analyses of such studies), no matter the amount of potential or the prospect of discovering a novel therapy. Thus we should wait to alter the standards of care and make definitive proclamations regarding the medical management of SAH until a well-designed randomized clinical trial investigating the role of statins after aneurysmal SAH is completed to best care for patients who have suffered this often devastating event.

Disclosures

None.

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4. Tseng MY, Czosnyka M, Richards H, Pickard JD, Kirkpatrick PJ. Effects of acute treatment with statins before SAH, the statement in the abstract that the data “support the routine use of statins in the care of patients with aneurysmal SAH” is concerning. Although we agree that the pleiotropic effects of statins are intriguing and that several agents in this class have exhibited some promise in the setting of SAH, the statement in the abstract that the data “support the routine use of statins in the care of patients with aneurysmal SAH” is disagreeable to us. We are disappointed that your prestigious journal published such a weak study with such a strong clinical implication statement that does not seem to be justified by the small meta-analysis.

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