

 SURGERY

Don't STICS to statins in cardiac surgery

Statin therapy does not prevent the complications associated with cardiac surgery, and might lead instead to kidney injury, according to the findings of the randomized, placebo-controlled STICS trial.

In addition to their well-characterized lipid-lowering function, statins also have anti-inflammatory and antioxidant properties, and previous studies have associated the use of these drugs in cardiac interventions with a reduction in postoperative adverse effects. “On the basis of this evidence, current guidelines recommend perioperative statin therapy for the prevention of atrial fibrillation and other in-hospital complications after cardiac surgery. However, these recommendations are based on small randomized trials that had other important limitations,” notes Barbara Casadei, corresponding author of the STICS study.

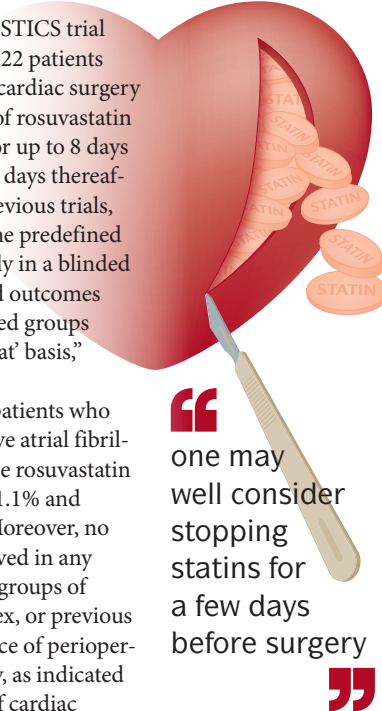
Investigators in the STICS trial randomly allocated 1,922 patients who were undergoing cardiac surgery to receive 20 mg daily of rosuvastatin or matching placebo for up to 8 days before operation and 5 days thereafter. Compared with previous trials, this study “evaluated the predefined outcomes systematically in a blinded manner, and compared outcomes between the randomized groups on an ‘intention-to-treat’ basis,” explains Casadei.

The percentage of patients who developed postoperative atrial fibrillation was similar in the rosuvastatin and placebo groups (21.1% and 20.5%, respectively). Moreover, no differences were observed in any of the prespecified subgroups of patients, such as age, sex, or previous statin use. The incidence of perioperative myocardial injury, as indicated by the concentration of cardiac

troponin I in blood samples, did not differ between the two groups. However, rosuvastatin treatment was associated with an increased rate of acute kidney injury (24.7% vs 19.3%; $P=0.005$).

The STICS trial indicates that statin therapy has no beneficial effects in cardiac surgery. Although this finding might be influenced by the specific drug tested (rosuvastatin) or the ethnic group involved (all patients were recruited at the Fuwai Hospital, Beijing, China), Casadei believes that these results are consistent with other research, and with the idea that the beneficial effects of statin therapy are achieved only with long-term treatment. “Considering that perioperative statin treatment has no benefit and might cause harm, one may well consider stopping statins for a few days before surgery,” she concludes.

Dario Ummarino



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ORIGINAL ARTICLE Zheng, Z. *et al.* Perioperative rosuvastatin in cardiac surgery. *N. Engl. J. Med.* **374**, 1744–1753 (2016)