

Pravastatin immunomodulates IL-6 and C-reactive protein, but not IL-1 and TNF- α , in cardio-pulmonary bypass

Caorsi, Carlos

Pineda, Fernando

Munoz, Carlos

Background. While statins are increasingly used in cardiopulmonary bypass (CPB), the anti-inflammatory effects of individual statins, within the context of various treatment regimes, need further examination. The present study evaluates the anti-inflammatory effectiveness of the short-term, preoperative and intensive postoperative use of pravastatin in CPB. **Method.** Forty three patients undergoing CPB were enrolled in a randomized, prospective clinical study. One group (n = 21), received pravastatin, the other (n = 22) did not. Patients in the pravastatin group received one dose of 40 mg per day for nine days, starting 48 hours before CPB, with an additional dose of 40 mg one hour after surgery. Plasma levels of selected inflammatory mediators were measured at baseline and tracked systematically. **Results.** Pravastatin reduced postoperative interleukin-6 (IL-6) levels significantly at 24 and 48 hours, and at seven days. Mean \pm SD values, for treated versus untreated patients were: at 24 h