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BAPCAP2-1

Does preoperative aspirin improve outcomes in cardiac surgery patients?

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Background and Goal of Study: The effects of preoperative aspirin on major cardiocerebral and renal outcomes and mortality remain uncertain.

Results and Discussion: Of all patients, 2868 patients met the inclusion criteria and were divided into two groups: those taking (n=1923) or not taking (n=945) aspirin within 5 days preceding surgery. The groups did not differ significantly in baseline parameters including body mass index, smoking, congestive heart failure and intra-operative cross-clamping time. Patients in the aspirin group had significantly more with history of hypertension, diabetes, peripheral arterial disease, previous MI, angina, cerebrovascular disease, chronic lung disease, older age and male gender; also were associated with more preoperative using beta-blockers and rennin-angiotensin system inhibitors, and more left main and multiple coronary artery disease, but spent less time in bypass perfusion. With propensity scores adjusted and multivariate logistic regression, however, the results of this study showed that preoperative use of aspirin significantly reduced the incidence of MACE (8.7% incidence in the aspirin group vs. 10.8% in the non-aspirin group, adjusted odds ratio [OR]: 0.662, 95% confidence interval [CI]: 0.482-0.909, P=0.011), postoperative renal failure (3.7% vs. 7.1%, OR 0.384, 95% CI 0.254-0.579, P< 0.001), and 30-day mortality (3.5% vs. 6.5%, OR 0.611, 95% CI 0.391-0.956, P=0.031) in the patients undergoing cardiac surgery.

However, 30-day readmission and intensive care unit stay did not show a significant difference between two groups.

Conclusion(s): The results of this study showed that preoperative therapy of aspirin significantly reduced major cardiocerebral complications, renal failure and 30-day mortality in patients undergoing cardiac surgery.