

論 文 要 旨

Incidence and Outcome of Non-cardiac Surgical Procedures After Coronary Artery Bypass Grafting Compared With Those After Percutaneous Coronary Intervention and Influence of Initial Acute Myocardial Infarction Presentation on the Outcome of Surgical Procedures after Coronary Artery Bypass Grafting: CREDO-Kyoto PCI/CABG registry cohort-2

徳重 明央

Backgrounds: Non-cardiac surgery after percutaneous coronary intervention (PCI) has been reported to be carrying high risk for both ischemic and bleeding complications. However, there has been no report comparing the incidence and outcomes of non-cardiac surgical procedures after coronary artery bypass grafting (CABG) with those after PCI and evaluating the associations between the preoperative status and the outcome of the surgical procedures after CABG.

Methods and Results: Among 14383 patients undergoing first coronary revascularization (PCI: N=12207, and CABG: N=2176) enrolled in the CREDO-Kyoto registry cohort-2, non-cardiac surgical procedures were performed more frequently after CABG (N=550) than after PCI (N=2314) (cumulative 3-year incidence: 27% versus 21%, unadjusted $P < 0.0001$), particularly within 6-month of coronary revascularization. The risk for the primary ischemic outcome measure (death/myocardial infarction) at 30-day post-surgical procedures was not significantly different between the CABG and PCI groups

(cumulative incidence: 2.8% versus 2.9%, unadjusted $P=0.8$, and adjusted hazard ratio [HR]: 1.03, 95% confidence interval [CI]: 0.50-2.05, $P=0.9$). The risk for the primary bleeding outcome measure (moderate or severe bleeding by GUSTO classification) trended to be lower in the CABG groups than in the PCI group (cumulative incidence: 1.3% versus 2.3%, unadjusted $P=0.2$, and adjusted HR: 0.41, 95% CI: 0.14-1.01, $P=0.053$). There were no interactions between the timing of surgery and the types of coronary revascularization (CABG/PCI) for both ischemic and bleeding outcomes. The risk for the ischemic and bleeding outcome measures in patients with AMI presentation were similar in the CABG group and in the PCI group, as well as it was similar in patients with non-AMI presentation in both CABG and PCI groups. After adjusting for potential confounders, there was no difference between the CABG and PCI groups in both the AMI and non-AMI presentations. In addition, there was no interaction between the risk-profiles of pre-operative conditions in patients who underwent surgical procedures and the types of coronary revascularization modalities (CABG/PCI). While, in the CABG group, cumulative incidences of both the ischemic and bleeding outcome measures at 30 days after surgical procedures were significantly higher in the AMI presentation than in the non-AMI presentation (ischemic: 9.5% versus 2.2%, $P=0.005$ and bleeding: 5.1% versus 1.0%, $P=0.03$, respectively). **Conclusions:** Surgical procedures were performed significantly more frequently after CABG than after PCI, particularly within 6 months after coronary revascularization. Surgical procedures after CABG as compared with those after PCI were associated with similar risk for ischemic events and lower risk for bleeding events, regardless of the timing after coronary revascularization. Furthermore, the higher ischemic risk in the AMI presentation compared with the non-AMI presentation suggested to be related to more morbid preoperative conditions in patients who underwent CABG.