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学位論文の題名	<p>Propensity score analysis comparing off-pump versus on-pump coronary artery bypass grafting in older adults (傾向スコアマッチングを用いた後期高齢者におけるオフポンプ冠動脈バイパス術とオンポンプ冠動脈バイパス術の比較検討)</p> <p>General Thoracic and Cardiovascular Surgery. 2023 Feb 18. Epub.</p>
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Abstract

This study aimed to compare the results of off-pump and on-pump coronary artery bypass grafting in older adults and to examine early and late outcomes. This study included 226 patients aged ≥ 75 years who underwent isolated coronary artery bypass grafting. Of these, 141 and 85 patients were included in the off-pump and on-pump groups, respectively. Propensity scores were calculated for each case, matched, and compared between the two groups (68 cases in each group), along with mid-term outcomes of survival and major adverse cardiac events. Operative time, red blood cell transfusion volume, and postoperative hospital stay duration were significantly higher in the on-pump group (267 min vs. 370 min, $P < 0.0001$; 4.3 units vs. 17.2 units, $P < 0.0001$; and 20.8 days vs. 35.8 days, $P = 0.012$, respectively). Postoperative occurrence of new atrial fibrillation was significantly higher in the on-pump group (4.4% vs. 27.9%, $P < 0.0001$), and Kaplan-Meier survival analysis showed a significantly worse prognosis in the on-pump group than in the off-pump group (3-year survival rate 90.7% vs. 71.5%, log rank $P = 0.007$). However, there was no statistically significant difference in cardiovascular-related deaths (log rank $P = 0.07$). On-pump coronary artery bypass grafting in an older adult population resulted in increased transfusion volume and postoperative occurrence of atrial fibrillation. The mid-term postoperative outcomes were also poorer with on-pump coronary artery bypass grafting. Off-pump coronary artery bypass grafting reduced future all-cause deaths in older adults.