**ABSTRACT**

Females have higher 30-day mortality after coronary artery bypass grafting compared with males. We evaluate the relationship between sex and incomplete revascularization as a risk factor for long-term mortality. We performed a single-center retrospective cohort review of adults undergoing isolated first-time coronary artery bypass grafting. Patients were identified through the Society of Thoracic Surgeons adult cardiac surgery database. Bivariate analysis of preoperative variables and postoperative outcomes was conducted. Univariable and multivariable logistic regression models were used to assess predictors of complete revascularization, and Cox proportional hazards models were fitted to evaluate factors associated with 30-day and long-term mortality. Kaplan–Meier survival analysis with log-rank testing was used to compare long-term survival by sex and completeness of revascularization. 1,422 patients (272 [19.1%] female) were included. 30-day and 90-day mortality was not different between females and males, but complete revascularization was significantly lower in females (64% v. 71.2%, p=0.023). Multivariable regression showed that older age, lower ejection fraction and low intraoperative hemoglobin were independently associated with all-cause 90-day and 10-year mortality. Female patients with incomplete revascularization were independently associated with all-cause 10-year mortality (HR 1.80 [95%CI 1.02;3.01], p=0.011). In contrast, male patients with incomplete revascularization were not independently associated with 10-year all-cause mortality (HR 1.24 [95%CI 0.78;1.80], p=0.223). In conclusion, female patients were less likely to receive complete revascularization, and incomplete revascularization was an independent predictor of worse long-term mortality in female but not male patients. Prioritizing complete revascularization when clinically feasible may improve long-term CABG outcomes in women.