

AB026. SOH23ABS_098. Factors that predict post-operative atrial fibrillation with particular reference to body mass index in patients undergoing coronary artery bypass grafting and/or aortic valve replacement

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Background: Post-operative atrial fibrillation (POAF) is a frequently encountered complication of cardiac surgery and is associated with significant morbidity and mortality post-operatively. Identifying predictors that contribute to its occurrence may help to reduce the incidence of this commonly encountered arrhythmia.

Methods: A total of 683 patients who underwent cardiac surgery and had no prior history of atrial fibrillation were included. Two groups were formed, the POAF Group and the Non POAF group. Their demographics and clinical characteristics were analysed to determine what factors contributed to POAF.

Results: Incidence rate of POAF was 19.2%. Results of first multivariate regression analysis found advancing age (OR 1.088, 95% CI: 1.058–1.118, P=0.0001), prolonged cross clamp time (OR 1.014, 95% CI: 1.003–1.025, P=0.012), prolonged hospital stay in days (OR 1.017, 95% CI: 1.001–1.033, P=0.040) and body mass index as a continuous variable (OR 1.057, 95% CI: 1.014–1.102, P=0.037) to be predictors of POAF. Results of second multivariate regression analysis found body mass index (BMI) as a categorical value to not be significant, however the other predictors were matching with those found in the first regression model:

advancing age (OR 1.088, 95% CI: 1.057–1.119, P<0.0001), cumulative cross clamp time (OR 1.014, 95% CI: 1.003–1.026, P=0.015) and total stay in days (OR 1.014, 95% CI: 1.998–1.031, P=0.040).

Conclusions: In this study we found advancing age, prolonged cross clamp time, prolonged hospital stay in days and BMI as a continuous variable to be independent predictors of POAF.

Keywords: Atrial fibrillation; body mass index (BMI); coronary artery bypass grafting; prolonged hospital stay in days; prolonged cross clamp time

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Footnote

Conflicts of Interest: The authors have no conflicts of interest to declare.

Ethical Statement: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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