

Atrial Fibrillation and Total Joint Arthroplasty: The Safety of Same-Day Discharge

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INTRODUCTION:

Atrial fibrillation (AF) is a known risk factor in patients undergoing total joint arthroplasty (TJA), however there is a paucity of literature regarding the feasibility of same-day surgery among this population. The primary aims of this study were to compare the incidences of the following among patients with and without AF undergoing TJA: emergency department (ED) visits within 72 hours postoperatively, ED visits within 7 days postoperatively, hospital readmissions within 30 days postoperatively, and cardiac events within 24 hours postoperatively.

METHODS:

A retrospective review of our institution's prospective joint registry was conducted to identify all total hip arthroplasties (THA) and total knee arthroplasties (TKA) between January 2019 and June 2023. Patients were stratified based on their history of AF and length of post-operative stay into two cohorts: 1) patients with a history of AF who did not undergo same-day discharge (PAF cohort) and 2) patients without a history of AF who underwent same-day discharge (NAF cohort). Cohorts were 1:1 propensity score matched. Multivariable logistic regression was used to analyze differences between cohorts.

RESULTS:

A total of 1102 patients were present in each cohort after 1:1 propensity score matching. Pre-operative AF diagnosis was not a significant predictor of ED visits within 72 hours postoperatively (18 [1.63%] PAF vs 7 [0.64%] NAF, $p=0.107$). The PAF cohort was more likely to have an ED visit within 7 days postoperatively (20 [1.81%] PAF vs 5 [0.45%] NAF, $p<0.001$) as well as a hospital readmission within 30 days postoperatively (9 [0.82%] PAF vs 3 [0.27%] NAF, $p=0.045$). Preoperative AF diagnosis was not a significant predictor of cardiac events within 24 hours postoperatively (3 [0.27%] PAF vs 0 [0%] NAF, $p=0.113$).

DISCUSSION AND CONCLUSION:

Same-day discharge for patients with a history of atrial fibrillation undergoing total joint arthroplasty is a safe and feasible option.