Higher 30-Day Readmission in Patients Taking Direct Oral Anticoagulants

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Purpose: Direct oral anticoagulants (DOACs), including Eliquis, Xarelto, and Pradaxa, have gained popularity and are being prescribed more frequently in the elderly population. Perioperative management of DOACs has been poorly defined with respect to postoperative complications. The aim of this study is to assess the complications of patients who are on DOACs as compared to patients not on any anticoagulation.

Methods: After IRB approval, we retrospectively reviewed all patients who sustained a low-energy hip fracture from January 1, 2017 to December 31, 2017 in our multi-hospital system. Patients on DOACs were compared to patients not on any anticoagulation. Demographic data, basic laboratory values, hospital complications, and 30-day readmission were examined.

Results: Of 1070 hip fractures, 71 patients (6.3%) were taking DOAC medications and were compared to a 2:1 cohort of 163 patients not taking any anticoagulants (control). Operative time (65 minutes DOAC, 69 minutes control), blood loss (145 mL for DOAC, 152 mL control), admission hemoglobin (12.1 DOAC, 12.4 control) and post-surgical hemoglobin (10.0 DOAC, 9.8 control) were similar. Preoperative blood transfusion requirements were higher in the DOAC group (11.27% vs 2.45%), and were similar intraoperatively (12.68% DOAC, 8.59% control) and postoperatively (30.99% DOAC, 28.22% control). Length of stay (7.11 days DOAC, 6.30 days control) and in-hospital mortality (1.41% DOAC, 1.23% control) were also similar. The DOAC group had higher ASA (American Society of Anesthesiologists) 4 status (32.4% vs 14.1%), higher discharge disposition to skilled nursing facilities (68.57% vs 50.31% control), and lower discharge disposition home (11.43% vs 22.98% control). Higher 30-day readmission was seen in the DOAC patients (18.57% vs 7.98% control). All 13 DOAC readmissions were for medical complications, and 4/14 readmissions in the control group were for surgical complications (3 hemiarthroplasty dislocations, 1 periprosthetic fracture).

Conclusion: Patients taking DOACs are more likely to require hospital readmission within 30 days, more likely to be discharged to a skilled nursing facility, less likely to be discharged home, and have more medical comorbidities than patients not on anticoagulants. These data can help with patient counseling and discharge planning when patients taking DOAC medications sustain hip fractures.