

Prevalence and Diversity of Chronic Anticoagulation in Low-Energy Hip Fracture Patients

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Purpose: Chronic anticoagulation appears to be common among hip fracture patients, but evidence regarding the exact prevalence and the effect of different oral anticoagulants on outcomes in hip fracture surgery is limited. The purpose of this study is to report the prevalence of chronic anticoagulation in low-energy hip fracture patients and compare outcomes between types of anticoagulation.

Methods: Acute low-energy hip fracture patients ages 55 years and older admitted through the emergency department and undergoing surgery from 2012 to 2017 at 3 academic Level-I trauma centers were queried. Impending, pathologic, and periprosthetic fractures were excluded. Patients on home anticoagulation were categorized into 3 groups: warfarin, factor Xa inhibitor (rivaroxiban or apixiban), or direct thrombin inhibitor (dabigatran). Demographics, transfusions, time to surgery, length of stay, and complications were compared using χ^2 and non-parametric testing.

Results: Of 3097 hip fractures meeting inclusion criteria, 347 patients (11.2%) were admitted on chronic anticoagulation (214 warfarin, 107 factor Xa inhibitors, 26 direct thrombin inhibitor) for an overall prevalence of 6.9%, 3.5%, and 0.8% respectively. 66% of patients on factor Xa inhibitors were admitted in the final 2 years of the 6-year study, compared to 50% on dabigatran and 36% on warfarin. There was no difference in transfusion rate, time to surgery, length of stay, or complications ($P < 0.008$) (Table 1).

Conclusion: This is the largest series of hip fracture patients on chronic anticoagulation to date. The prevalence of direct oral anticoagulants is increasing over time, and it is important to understand the influence that novel oral anticoagulants have on patient outcomes. Type of anticoagulation did not affect outcomes, with the exception of readmission rates, in this cohort.